PATTERN AND ATTITUDE TOWARDS SICK LEAVE USAGE AMONG CIVIL SERVANTS

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CHAPTER ONE: INTRODUCTION

1.1 Introduction

Recently, there has been much interest in absenteeism issues and it has become an important area of research in the fields of human resources, psychology, management and education. There is a growing body of research on this topic because of its importance to organizational effectiveness.

Absenteeism has been a major issue to many organizations both private and public. It is very costly to individual and organizations. Although no systematic assessment has been made of its cost to Malaysian organizations, but in the United States, it has been estimated that over 400 million work days are lost annually to employee absenteeism, equivalent to 5.1 days per employee per year (Steers & Rhodes, 1980). The estimated cost of absenteeism to the US economy is $26.4 billion (Steers & Rhodes, 1978). However, this figure could be very much more today. The US Department of Health and Human Services reported that over 3 million employees are absent from work on any schedule work day and half of this is due to sickness leave. In the United Kingdom, 370 million working days are lost annually due to certified incapacity, which cost British business 13 billion pounds are result of it (Marmot, Feeney, Shipley, North & Syme, 1995). In Hong Kong, there were 47500 workdays lost as a result of employee sick leave in 1998, and the average duration of sick leave per incident is 11.7 days (Population by census, 1998), representing a considerable loss of resources. Beside that,

Confederation of British Industries (2001) estimated public sector absenteeism in Northern Ireland to cost the local economy £250 million per annum.

1.2 Avoidable and Unavoidable Absence

According to Harrison & Price (2003), if someone is not physically present at a location, they are not necessarily absent from it. They propose a definition of absenteeism that has a narrower, more useful meaning and that is consistent with a portion of the absenteeism literature Harrison and Price (2003) define absenteeism as a lack of physical presence at a behavior setting when and where one is expected to be. In Malaysia, section 21 (2) of the Public Officers (Conduct and Discipline) (Chapter "D") General Orders 1980 defines "absence" for the purpose of that section as the "failure to be present for any length of time whatsoever at a time and place where the Officer is required to be present for the performance of his duties (Mohamed, 1992).

Nicholson, Brown and Chadwick-Jones (1977) categorize absenteeism as avoidable and unavoidable absence. They distinguished sickness, involuntary, sanctioned and absence frequency as unavoidable absence and casual, voluntary, unsanctioned and absence frequency as avoidable absence.

There are various indices of absenteeism. These include frequency measures (number of time of absent); severity measures (duration or days absent); attitudinal absence (frequency of one-day absences); and medical absences defined as the frequency

of absences lasting for three days or more (Huse & Taylor, 1962). Other absenteeism indices reported include lateness and worst day of week ('Blue Monday' or Friday) (Chadwick Jones, Brown, Nicholson & Shepard, 1971). Despite numerous and varied indices of absenteeism used, the frequency index has been reported to the most reliable and consistent measure of absence across different studies (Muchinsky, 1977).

Voluntary absence usually been operationalized by absence frequency, which is the number of spells or times and individual has been absent, regardless of the length of each of those spells. In contrast, involuntary absence has tend to measured using a 'time lost' or absence duration index, representing the total length of time an individual has been absent over a specified period (often 12 months) regardless of the number of absence spells (Hackett and Guion, 1985; Hammer and Landau, 1981; Nicholson et al., 1977).

1.3 Problem Statement

Numerous studies in the psychological literature have examined individual and organizational predictors of sickness and absence from work, such as extensive reviews by Clegg (1983), Hammer and Landau (1981), Jenkins (1980) and Parkes (1987). Sickness absence has been defined as, absence attributed by the employee to illness or injury and accepted as such by the employer (Searle, 1997). According to Kristensen (1991), the ability to work is greatly influenced by a person's own perception about

his/her capability or incapability and absence can be viewed as a very personal decision based on both the ability to attend and the motivation to attend.

The provision of sick leave usage is for employees who are genuinely too ill to come to work. The actual use of sick leave however involves choice whereby employees chose to use sick leave to absent from work. Rogers and Herting (1993) calls this form of sick leave as 'elective sick leave'. Elective sick leave includes sick leave due to slight headaches, minor menstrual discomfort, minor backaches, elective medical appointments, sick children at home, or where no discernible illness is involved, includes for such purposes as personal business and recreation. In all these cases the employee is able to work without any detrimental effect on his/her health or on the health of other employees or on job productivity as a whole but chooses not to work.

The occurrence of elective sick leave involves complex decision by the individual employee. One key model that explains the decision involved in sick leave usage is decision model (Johns, 1997). Decision model principally investigates the cognitions underlying absences namely that set of cognitive or temporal parameters that influence attendance behavior. The use of sick leave involves complex decision making by an employee. A complicated mix of motivating factors influences this decision. On the one hand it may involve positive motivators and on the other hand it could be negative motivators. According to this model, in the mind of the employee, there are positive motivators (e.g. wages, job challenge, approval of boss and peer, etc.) for coming to work

and negative motivator (e.g. feeling guilty, boredom at home, fear of increased work, management disapproval, fear of future illness, etc.) against staying at home.

Conversely, there are positive motivators (e.g. paid sick leave, relaxation at home, no stress, leisure time, job security, etc.) for staying at home and negative motivator (e.g. job frustration, excessive workload, boredom at work, poor work environment, etc.) against coming to work. If the positive motivators for coming to work are greater than the negative motivators against staying at home, then the employee will decide to go to work. On the other hand, if the positive motivators for staying home are greater than the negative motivators against going to work, then the employee will elect to stay home and use sick leave.

Sick leave is one of the various forms of unavoidable absence. Its utilization by employees has been a perennial problem to organizations. The provision for sick leave is part of the perk for employees, as a privilege for employees to be absent from work due to illness that make them "not fit" to work. It has however, been abused by employees. Employees use sick leave as mean to be absent from work even when they are actually "fit" to work. Therefore, rather than being genuinely sick, they 'elect' to be sick and do not come to work. Thus, this is a voluntary form of absence and "time lost" to the organization.

Buchan & Seccombe (1995) in a study of absence among nurses in the National Health Service in the UK that there are several management issues arising from absence

such as impact on quality of care, impact on continuity care, impact on productivity, impact on organizational costs, effects on remaining staff and time spent organizing cover. Although these management issues are specific to hospital management, however some of them are pertinent to all organizations such as impact on productivity, staff replacement cost and overall service quality. Absenteeism, whether avoidable or unavoidable, have a negative impact on organizational growth. It is one of the most persistent obstacles to productivity, profitability and competitiveness for an organization. It can cause overtime charges, late deliveries, dissatisfied customers and a decline in employee morale amongst workers who are expected to cover for an absent employee. Therefore, it is essential that all organizations whether public or private become more aware of the degree to which employee absence is an unnecessary cost; a cost which they must seek to reduce to a minimum if they are to survive and grow in the current climate of change. This awareness must start at top management where the estimated cost of absence is sufficient to generate organizational commitment to subsequent action.

This research is carried out primarily to examine sick leave utilization among civil servants. The study will also examine the general attitude of civil servants towards sick leave usage. For instance how frequent do they take sick leave for non sick leave purposes? This study will provide data as to how pervasive is the problem of sick leave utilization among civil servants and also ‘elective sick leave’ as defined above is a major problem among civil servants.

1.4 Research Questions

The following are some key questions addressed by this research.

1. What is the average sick leave taken by civil servants per annum?
2. Are there differences in the quantum of sick leave taken by male and female employees?
3. Are there differences in the quantum of sick leave taken by young and older civil servants?
4. Is there a difference in quantum of sick leave taken by less experience and more experienced civil servants.
5. Are there differences in the quantum of sick leave taken by different categories of civil servants?
6. How pervasive is the problem of 'elective sick' among civil servants?

1.5 Research Objectives

To answer the above questions, this study seeks to accomplish the following objectives:

1. To determine the average sick leave per annum taken by civil servants.
2. To determine gender differences in sick leave among civil servants.
3. To determine age differences in sick leave among civil servants.

4. To determine whether there are differences in sick leave based on experience among civil servants.
5. To determine whether there are differences in sick leave based on employment among civil servants.
6. To investigate the reasons civil servants take sick leave and the frequency of doing so.

1.7 Scope of Study

The study was carried out among civil servants in Kedah. The study was carried out in two government organizations. One is a statutory agency i.e. Universiti Utara Malaysia. The other was a federal agency, that is Kastam Di Raja Malaysia, Kedah.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

In order to explore absenteeism among civil servant in Kedah it was essential to study the literature on that topic. Since the literature on the topic of absenteeism within the Malaysia setting is somewhat limited, the body of work must be categorized around settings used in past studies. This chapter has six important sections. The chapter begins with the meaning of absenteeism in the first section. Second section will discuss how absenteeism has been measured in previous researches. The third section will discuss some predictors of absenteeism. The fourth section will examine the consequences of absenteeism. The fifth section will examine past research that has investigated gender differences in absenteeism. The final part will discuss the literature on age and experience and absenteeism.

2.2 Meaning of Absenteeism

Generally absent means non-attendance. This non-attendance could be caused by sickness, holidays, study leave, on strike, or for a personal/domestic leave, such as time off to take care for sick relatives. Referring to manuals of social law and personnel management (Guinchard, 1998) absenteeism refers to the non-presence at work, a voluntary reduction by the individual of his or her working time. Robbins (2003), Huczyuski and Fitzpatrik (1989) define absenteeism in workplace setting as a failure to report to work or non attendance of employee for scheduled work that they are expected

to attend. Harrison and Price (2003) gives a more useful meaning that is more consistent with absenteeism literature which defines absenteeism as a lack of physical presence at a behavior setting when and where one is expected to be. The source of expectation for attendance in most cases is likely to be one's immediate supervisor.

Nicholson, Brown and Chadwick-Jones (1977) categorize absenteeism as avoidable and unavoidable absence. They distinguished sickness, involuntary, sanctioned and absence frequency as unavoidable absence and casual, voluntary, unsanctioned and absence frequency as avoidable absence.

2.3 Measuring Absenteeism

There are various indices of absenteeism. These include frequency measures (number of time of absent); severity measures (duration or days absent); attitudinal absence (frequency of one-day absences); and medical absences defined as the frequency of absences lasting for three days or more (Huse & Taylor, 1962). Other absenteeism indices reported include lateness and worst day of week ('Blue Monday' or Friday) (Chadwick Jones, Brown, Nicholson & Shepard, 1971). Despite numerous and varied indices of absenteeism used, the frequency index has been reported to be the most reliable and consistent measure of absence across different studies (Muchinsky, 1977).

Voluntary absence has been operationalized by absence frequency, which is the number of spells or times and individual has been absent, regardless of the length of each

of those spells. In contrast, involuntary absence tend to be measured using a 'time lost' or absence duration index, representing the total length of time an individual has been absent over a specified period (often 12 months) regardless of the number of absence spells (Hackett & Guion, 1985; Hammer & Landau, 1981; Nicholson, Brown & Chadwick Jones, 1977).

2.4 Predictors of Absenteeism

Given the demonstrated negative impact of absenteeism as discuss early, it is not surprising that an enormous research has been dedicated to determining the causes or predictor of employee absenteeism (Hardy, Woods & Wall, 2003; Hoogendoorn et al., 2002; Iverson, 2000). Absenteeism is a prevalent problem in today's workforce and it's a crucial to a company's ability to minimize its negative impact. Beside that, it is important because if we want to minimize the incidence of absenteeism, firstly we must recognize the causes.

Past research found that there are a number of factors that influence employee absenteeism. There are sickness absence (Clegg, 1983; Hammer and Landau, 1981; Jenkins, 1980; Parkes, 1987), mood (George, 1989), high physical workload and low job satisfaction (Hoogendoorn et al., 2002), unfairness (Boer, Bakker, Syroit & Schaufeli, 2002), work factors (Eriksen, Bruusgaard & Knardahl, 2003), fatigue (Janssen, Kant, Swaen, Janssen and Schroer, 2003), and psychological distress (Hardy et al., 2003).

Sickness absence has been defined as, absence attributed by the employee to illness or injury and accepted as such by the employer (Searle, 1997). Numerous studies in the psychological literature have examined individual and organizational predictors of sickness and absence from work, such as extensive reviews by Clegg (1983), Hammer and Landau (1981), Jenkins (1980) and Parkes (1987).

In addition, there are three important predictors of sickness that got a much attention from researchers. Studies conducted by Bass, 1980, Hendrix, Ovalle, Tinning and Spry, 1981, and Troxler, 1985 cited in Parkes (1987) found smoking, relative weight, and mental health all were significant predictors of sickness and absence from work. Mental health also gives effects to sickness absence. Jenkins (1980) demonstrated a relation between absence and psychoneurotic problems. Hoogendoorn et al. (2002) found physical and psychosocial load at work influences sickness absence as a result of low back pain. Fatigue was also found to be a significant predictor of sickness absence (Janssen et al., 2003). Fatigue was associated not with short term but particularly with long-term sickness absence. Ericksen, et al., (2003) conducted a study to identify the work factors that predict sickness absence in nurses' aides. Results found perceived lack of encouraging and supportive culture in the work unit, working in psychiatric and pediatric wards, having injured the neck in an accident, and health complaints were associated with higher risk of sickness absence among the nurses. Mood or feeling states also influence absenteeism among employees in organization. George (1989) found that positive mood at work was significantly and negatively associated with absenteeism.

Hardy et al., (2003), examined the impact of psychological distress and job satisfaction on absence from work. Organizational records of absence over a 3-year period were obtained for 323 health service staff in the United Kingdom. Result shows that psychological distress, particularly depression, was found to predict absence. Job satisfaction was also found to be associated with absence from work. The effect of job satisfaction on absence appears to be equivalent to that of psychological distress on absence.

Boer et al., (2002) studied the relationship between perceptions of unfairness at work and absenteeism. Results of a series of structural equation modeling analyses offer support for the mediating role of health complaints in the relationship between distributive and procedural unfairness at work and absenteeism.

2.5 Consequences of Absenteeism

The issue of absenteeism among employees has attracted much attention in recent years, and from a variety perspective. For example absenteeism and demographics factors (Bridges & Mumford, 2001; Moncada, Navarro, Cortes, Malinero & Atascosa, 2002; Thomson, Griffiths & Davidson, 2000); predictor of absenteeism (Janssen et al., 2003; Eriksen et al., 2003) and sickness absence in diabetic employees (Skerjanc, 2001). Research on consequences of absenteeism also got much attention and one of the excellent reviews of the multifaceted consequences of absence behavior is by Goodman and Atkin (1984).

According to Goodman and Atkin (1984) the consequences of absence can be both positive and negative and can affect individuals themselves, their coworkers, the large work group, the organization and its management, the union and its leaders, the family and finally society at large.

From the individual viewpoint, the positive consequences of absenteeism seem relatively straightforward and come from a variety of sources. Absence from work temporarily removing oneself from a stressful work environment, allowing time for non-work role obligations (such as taking care of a sick child), allowing time off for a hobby or outside interest (such as fishing) and in some situations allowing the individuals to comply with workgroup norms "requiring" everyone to take some time off so as not to make other group members look bad. The negative consequences of absenteeism to the individual are fairly straightforward. The negative consequences according to Goodman & Garber (1988) includes loss of pay, increased probability of on the job accidents when the employee returns to a less than familiar job situation, and disciplinary procedures. Beside that, increased absences can also lead to altered job perceptions where individuals feel a need psychologically to justify their behavior.

Absenteeism can have consequences for the coworkers. On the positive side, absenteeism can increase job variety and skill development. In addition, if the work area is understaffed, there may be opportunities for overtime pay. On the negative side, absenteeism can increase workload, increased accidents, conflict with absent workers and undesired overtime.

Absenteeism has numerous consequences for the work group. Absenteeism can allow people to learn more jobs, thereby creating greater crew flexibility in meeting production challenges brought on by various reasons. However, these some people can also experienced increased coordination problems, decreased productivity and increased accidents levels. Hence, for work groups, absenteeism probably has more cost than benefit.

Positive and negative consequences fall to the organization. The absence of a worker may give organization greater job knowledge base in workforce and greater labor-force flexibility. However, absence can also result in decreased productivity, increased accidents, cost, and grievances rates.

For union officers, the situation is somewhat different. Absenteeism can be tool for strengthening the power of the union with respect to management. Union solidarity also increases at times, especially if union members feel under threat by a management determined to reduce such behavior. Absenteeism also has negative consequences for the union such as when absence rates is high, union leaders run the risk of losing credibility for being unable to control their own people and grievance handling costs can also be expected to rise.

Family also is affected by absenteeism. On the positive side, absence from work allows the employee time to deal with health or illness problem, to manage marital problems and to manage child problem. Beside that, in the case of dual wage earners,

absenteeism by one of the partners may be necessary to ensure the other spouse's job earning. However absenteeism can also lead to less income for the family, a decline in work reputation, aggravated marriage and other family relation.

Finally, absenteeism can have consequences for society at large. For society, being absent can have a several benefits, including reduction of job stress, mental health and social problems associated with marital relations problem. Absenteeism also has negative consequences for the society. Absences can result in increased costs, especially in the form of a general loss in productivity. Productivity losses not only affect corporate profit or organizational efficiency, but it's also influence GNP and international balance of payments by making one country's product or services less competitive in world markets.

Other researchers also found the negative consequences of absenteeism. Ho (1997) argued that the economic impact of employee absenteeism derives mainly from the costs of decreased productivity because of absence from work, less experienced replacements and the additional expense of hiring substitute labour. On the basis of data collected by the Confederation of British Induatries (1999) it is estimated that when indirect costs are included, absenteeism costs British employers around £1,092 per employee per year. The Confederation of British Industry (2001) also found absence and ill-health retirement rates for public sector employees have been higher than for employees in the private sectors.

Past studies clearly show that's absenteeism can give more cost than benefit to organization and other unit of social analyses. Although absence from work can give a several benefits to organization, it also can give negative impact to organization especially in term productivity when the high rate of absenteeism is neglected without any action to control.

2.6 Gender and Absenteeism

Gender is a critical variable that has been examined in absenteeism research. A consistent finding from research on gender and absenteeism is that women tend to be absent from work more often than men (Clegg, 1983; Johns, 1978; Kivimaki et al., 1997; VandenHeuvel & Wooden, 1995). Some of the reasons are: women have more health complaints with female phenomena; workingwomen have multiple roles as they are also married and/ or have children. However this evidence is not conclusive. In a study among employee in a high technology plant, Markham, Denserau and Alutto (1982) found women had more absence than men. Fitzibbons and Moch (1980) also found women had more excused absence than men among nonsupervisory workers.

Tsui, Egan and O'Reily (1992) investigated the effects of workforce heterogeneity (individuals working with people who are demographically different from one another with respect to gender age and race) on attendance behavior in work units. The study found that gender differences (gender heterogeneity) in a work unit had a more negative effect on attendance behavior for men than for women. Thus for men, increased differences in the gender composition of a group was associated with increased absence.

For women in contrast, increased differences in the gender composition of a group was associated with lower absence.

In addition, there has also been some debate in the literature as to the tendency of females with dependants to be absent. Leigh (1983) and Vistenes (1997) as cited in Bridges & Mumford (2001) found that the presence of children younger than 6 increased female absenteeism but Paringer (1983) reported that women with dependants were less likely to be absent**.** Women are reported to have a higher rate of absence and more days of sickness absence than men (Tellness & Bjerkedal, 1990; Isacsson et al., 1992), and working hours, family situation and children are of significance in this context (Blank & Diderichsen, 1986; Chevalier, Luce & Blanc, 1987).

Studies also indicate that health related indicators (e.g. incidence of colds, shift work, somatic symptoms) are more critical in predicting absenteeism among women than men (Kivimaki et.al, 1997; VandenHeuvel & Wooden, 1995). The above findings are consistent with previous finding that women take better care of their health, are more aware of their illness, and consult health services more often than man do (Rael et.al, 1995). In contrast, men often deny ill health. Thus, given the presence of physiological and health-related symptoms (e.g. headaches) caused by demanding situations at work (i.e. complex tasks in a noisy environment), women are more likely to take absence to combat theses illness or adverse physical symptoms as compared to men (Rael et.al, 1995).

VandenHeuval and Wooden (1995) examined whether the process of absence differs for men and women. This study examined how age, presence of dependents, job satisfaction, commuting time, stressful life events and work shift influenced absence behavior for men and women. The study found the effect of age and job satisfaction on absence varied significantly between men and women. A significant, inverted-U relation between age and absence was found for men but not women. For women there was no obvious relationship between age and absence.

Variations in expressed levels of job satisfaction were found to influence the attendance behavior of men but not women. The average absence rate for men with low job satisfaction was about 46% higher than that for men with high job satisfaction. A significant relationship was also found between absence and commuting time for women but not for men. Women who commuted to work for a relatively long period of time each day had a relatively higher absence rates. Shift work was also found to influence absence behavior among women but not among men. Women who regularly worked on shift hours had absence rates that were 27% higher than those of women who did not.

VandenHeuval and Wooden (1995) suggested that the variation in absence behavior among men and women could be due to internal and external factors. Women's absence behavior was more sensitive to external pressure such as stressful life events, whereas men's absence behavior was more sensitive to internal factors such as job satisfaction. Women's higher absence resulting form external factors could be attributed

to the dual responsibility women assume (family responsibility and wage earner) which can create pressure on women to absent from work.

Buchan & Seccombe (1995) examine absence among nurses in National Health Service, UK. In this study, female nurses reported a significantly higher (50 per cent) incidence of absence than male nurses (44 per cent). In addition, family and other commitments also are significant factors in the absence of nurses. Overall, the survey data shows no difference in the frequency of absence between those (female) nurses who have dependent children or adults and those without such caring responsibilities. However, Buchan & Seccombe (1995) found absence among those with pre-school age children is significantly higher. They also found length of service has a strong and clear relationship with absence. Those with shorter length of service tend to be absent more often.

Bridges and Mumford (2001) was examined absenteeism in UK and make a comparison across gender. They were analyzing an empirical model of absence from work based upon a variant of the traditional work-leisure model of labour supply. The study found substantial differences in the probability of absence across various gender and family situation. For men, marriage status, children aged 2-5 and age is the primary determinants of absenteeism. In general, for women, family income, education and preschool aged children all affect absenteeism. However, it is the presence of children aged less than 2 that has the major impact. Beside that, Bridges and Mumford (2001) also found the conclusion concerning gender differences in absenteeism are sensitive to the

definition of absence used. If the definition of absenteeism narrowed to include illness and accidents, they found that women have a similar pattern of absenteeism to men. The different in the results arises primarily from prevalence amongst women with very small children to be absent.

Fried, Melamed & David (2002) studied the joint effects of noise, job complexity and gender on employee sickness absence. They found noise have the strongest positive correlation with absenteeism for female employees with high job complexity. They also found that noise and gender are positively correlated with sickness absence, suggesting that higher noise is related to more absenteeism and that females are absent more often than men are. Studies of occupational groups show that blue collar and junior white-collar workers have a higher level of sickness absence than senior white-collar workers (Marmot, Feeney & Shipley, 1995; Sharp & Watt, 1995).

Moncada et al., (2002) analyzed the variations of sickness leave rates among the Barcelona city council civil servants by administrative category and gender. The study found that among men, rate ratios of long spells increased constantly from middle technician category to the unskilled worker category for three age groups i.e. 35-44 years, 45-54 years, and above 54 years. However, this social pattern was not clear for younger workers. Among women, rate ratios of long spell showed far fewer differences than among men. However, incident rates of short sickness leave showed a different pattern. Among men rates decreased with age except for the oldest groups of unskilled and auxiliary workers. Among women the rates decreased with age, except for two age

groups i.e.the 35-44 age group, and the oldest groups of workers. Moncada et al., (2002) concluded that women had generally higher rates than men did, and manual categories had higher rates than non-manual ones.

Chee & Rampal (2003) examined the relation between sick leave and selected exposure variables (physical and chemical hazard) among women semiconductor workers in Malaysia. They found marital status was strongly linked to the taking of sick leave.

2.7 Age, Experience and Absenteeism

Research on age and experience in relation to absenteeism has examined both avoidable and unavoidable absences. According to Hackett (1990), the relationship of absenteeism to age and tenure was partially a function of absence type (avoidable or unavoidable) and sex. The study found age but not tenure was inversely associated with avoidable absenteeism, especially for males. Gender was found to moderate the negative relationship between age and avoidable absence. The relationship between age and avoidable absenteeism was fairly substantial for males in the all- male sample and negligible for females in the all-female sample. The study also found unavoidable absence was unrelated to either age or tenure. Martocchio (1989) conducted a meta-analysis to synthesize individual effect sizes of age-absence relationship based on absence frequency and time lost. The study found both frequency of absence (an indicator of avoidable absence) and time-lost (an indicator of unavoidable absence) decreased with age.

Nicholson, Brown and Chadwick –Jones (1977) reported differences in the relationship between age and absenteeism for men and women and avoidable and unavoidable absences. Avoidable absence was found to be inversely related to age and this tendency was more pronounced for men than for women. A positive relationship between age and avoidable absenteeism was found to be common for men. The study also noted other relationships (inverse, curvilinear and zero) between age and absenteeism. However no clear-cut relationship between age and unavoidable absence was observed for women. For men, there was a tendency for unavoidable absence to increase with age. In the same study Nicholson, Brown and Chadwick –Jones (1997) investigated absenteeism among blue- collar workers across four contrasting technologies: clothing manufacture; foundries; continuous process plants producing oil, power, chemicals and plastics; and bus companies. The study found avoidable absence was inversely related to age and was especially prevalent amongst male workers. This relationship was reported to be more stable and reliable for age than for tenure.

Similar findings were also found in a study of rubber tappers in Malaysia (Ali & Davies, 2003). The study found the relationship between age and avoidable absence to be negative indicating that as age increases, avoidable absence decreases. Male rubber tappers also had significantly higher avoidable absence rates than did female rubber tappers. The relationship between age and unavoidable absence was found to take the form of an inverted-U. Unavoidable absence initially increased with age, peaked in the mid-forties and declined thereafter. Garrison and Muchinsky (1977), in a similar study

among clerical workers, found a negative relationship between age and avoidable absence and a positive relationship between age and unavoidable absence.

Gellatly (1995) also found a negative relationship between age and absence frequency among hospital employees. This relationship can be explained by the fact that older workers usually take up higher responsibility at work and they will not ask for a sick leave as a result of minor illness (Clegg, 1983). However this finding is not consistent with Peiro et.al (1999). Peiro et.al (1999) found that age was positively related to absence.

Buchan & Seccombe (1995) examined in detail the issue of absence among nurses in the National Health Service (NHS) in the UK. In the study, they found negative relationship between age and absenteeism. The number of multiple absences reduces with age.

Thomson, Griffiths and Davison (2000), examined the nature of the relationship between age, tenure and absence in 2417 British local government workers drawn from three work groups (administrative workers, homecare workers and residential care workers). The study found linear relationships between age and absence that were negative for non-certified absence and positive for certified absence. Meanwhile, curvilinear relationships were found between tenure and absence that were U-shaped for non-certified absence and inverse U-shaped for certified absence. In other study tenure

has been found to be negatively associated with absenteeism (Garrison & Munchinsky, 1977; Nicholas, Brown & Chadwick-Jones, 1977).

Past research also found higher rates of sick leave among older workers (Brenner & Ahern, 2000; Niedhammer, Bugel & Goldberg, 1998). The incidence of sickness absence and the number of absence per person are highest among young workers and fall as age increases (Prins, 1986; Isacsson et al., 1992). Short periods of sick leave are more common among younger and long periods among older workers (Prins, 1986; Isacsson et al., 1992; Marmot et al., 1995).

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter outlines the research methodology used in this study. The study was carried out in two phases. The first phase examined the pattern of sick leave usage among civil servants. The second phase examined the general attitude of civil servants towards sick leave usage.

The first part of this chapter will outline the details of the sampling procedure for both phases of the study. This will be followed by a discussion of the procedures involved in data collection. The data analysis techniques used in the study is then briefly discussed. Finally, some methodological limitations are outlined.

3.2 Sample

The subjects for the study comprised of civil servants from two government agencies in Kedah i.e. University Utara Malaysia, a statutory agency, and Kastam Di Raja Malaysia, Kedah, a federal agency.

3.2.1 Sample for Pattern of Sick Leave Usage Study

3.2.1.1 Sample for UUM

The sample for UUM consisted of all employees of UUM in 2001, 2002, 2003, and 2004. The complete list of employees and the sick leave taken for 2001, 2002, 2003, and 2004 was obtained from the Registrar's office. The details of the employees and the sick leave taken for the four years corresponding to the study were kept in a computerized database system called PERSIS (Personnel Information System). Permission was sought from the Registrar to access this information. The system administrator extracted the information of the employees minus the name of the employees (for reason of confidentiality of information) and provided the information in Excel spreadsheet format. The data was provided in four Excel spreadsheet files with each file corresponding to each year of study i.e. 2001, 2002, 2003, and 2004.

Based on the information provided in the files, the extraction of employee details resulted in the following number of employees. In 2001, there were 1716 employees. In 2002, there were 1847 employees. In 2003, there were 2031 employees and in 2004 there were 2173 employees. From these figure employees who had left UUM either through retirement or resignation in any of the four years were excluded from the study. Also excluded from the study were female employees who were on maternity leave during the four-year period of the study. The total number of female employees who took maternity leave during this period was 306 employees. Table 3.2.1.1 provides a summary of the

sample determination for UUM. Based on the figures in Table 3.2.1.1, the final sample derived for UUM was 1808 employees.

Table 3.2.1.1 Sample from UUM

	2001	New Employees			Total
		2002	2003	2004	
Employed	1716	131	184	142	2173
Left	34	12	6	7	59
Sub-total	1682	119	178	135	2114
Maternity					306
Total					1808

3.2.1.2 Sample for Kastam Di Raja Malaysia, Kedah

The sample for Kastam Di Raja Malaysia (KDRM), Kedah was derived from personnel records obtained from the head quarters in Alor Setar. Information on sick leave was kept in the employee personnel records. In order to obtain this information, it has to be manually extracted from the personnel records. A form was devised to extract this information. The employees of KDRM, Kedah are posted at various stations, which include Alor Setar, Langkawi, Bukit Kayu Hitam, Kulim, and Sungai Petani. However, all the personnel records of the employees from these stations are kept at the head quarters in Alor Setar.

The personnel records of the KDRM employees contain only sick leave information from 2002 to 2004. The information for 2001 was not available in the personnel records. Based on the extraction of the information from the personnel records, a total of 253 employees with sick leave data for 2002, 2003, and 2004 were obtained. Table 3.2.1.2 provides a summary of the information.

Table 3.2.1.2 Sample for KDRM, Kedah

Station	Employed	Incomplete*	Maternity	Total
Alor Setar	112	19	8	82
Langkawi	66	15	3	48
Bt. Kayu Hitam	99	31	4	64
Kulim	22	9	2	11
Sg. Petani	67	16	3	48
Total	366	77	20	253

* retired and newly join

Based on the UUM and KDRM figures, the total number of employees with sick leave information that was included in the study was 2016 (1808 + 253).

3.2.2 Sample for Attitude Towards Sick Leave Usage Study

Once again data concerning attitude towards sick leave usage was obtained from UUM and KDRM employees.

3.2.2.1 Sample for UUM

A complete list of all staff employed by UUM at the end of 2004 was obtained from the Registrar's office. Based on the list, there were 2204 employees. The breakdown of the employees according to employment status is given in Table 3.2.2.1. For each category, 20% of the employees were randomly selected. The total sample size for all five categories was 441.

Table 3.2.2.1 Sample size for attitudinal survey for UUM

Category	No. of Employees	Sample size (20%)
Top Management	19	4
Professional Management (Academic)	1080	216
Professional Management (Administration)	182	36
Support Service 1	520	104
Support Service 2	403	81
Total	2204	441

3.2.2.1 Sample for KDRM, Kedah

A listing of the entire employment category in KDRM was obtained form the head quarters in Alor Setar. There were a total of 454 employees in the various categories. However, for the purpose of this study, custom personnel assigned to the Marine unit [Grade A22 – N1 (cook)] were excluded from the study because these employees are mostly out at sea. Thus it will be difficult to contact them to obtain their response. A total of 404 employees were thus available for sample selection. Table 3.2.2.2 provides the breakdown of employees according to the various categories at KDRM, Kedah.

Table 3.2.2.2 Sample size for attitudinal survey for KDRM

Category	No. of Employees	Sample size (25%)
Top Management	1	0
Professional Management (Administration)	47	12
Support Service 1	306	77
Support Service 2	50	13
Total	404	102

3.3 Data Collection

Data collection was carried out in two phases. The first phase involved collecting data on actual sick leave take over the period of study from 2001 to 2004. The second phase involved collecting data on the attitude towards sick leave usage.

3.3.1 Sick Leave Utilization Data

Data on sick leave utilization was collected for all employees identified as sample in the study. The sick leave data for the UUM sample was obtained via computer records. UUM's PERSIS system captures electronically all sick leaves taken by employees. The Registrar's office provided the sick leave taken for each month from January 2001 to December 2004 in Excel spreadsheet files. Each spreadsheet file contains the total sick leave taken for each month for the period of study. This information is then extracted and entered into SPSS for each subject of the study. Besides sick leave data, the Excel files also contain information on gender, date of birth, date of employment as well as employment category for each subject in the study. Using the information on date of birth and date of employment, the age and experience of the subjects as at 31 December 2004 was computed

The data collection at KDRM was more onerous as the data had to be extracted manually from the personnel records, which were made available, by headquarters at Alor Setar. To accomplish this task two forms were designed. The first form was used to

extract the personal information of each subject in the study. This includes the gender, date of birth, date of employment, and the employment category. The second form was used to extract the sick leave taken for each month from January 2002 till December 2004. Once this has been manually accomplished for all the subjects of study at KDRM, Kedah, the total sick leave for each month was then entered into SPSS together with the personal information for subsequent analysis.

3.3.2 Attitude Towards Sick Leave Data

Attitude towards sick leave data was captured using a survey questionnaire (see Appendix 1). The questionnaire comprised three parts. The first required the respondents to provide some personal information such as gender, age, race, level of education, marital status, number of children, who looks after a sick child, level of employment, status of employment, experience, distance from place of employment, mode of transport to work, and the frequency of sick leave utilization.

The second part of the questionnaire comprised 16 statements on reasons one would take sick leave. The respondents were asked to state whether they take sick leave for the stated reasons. The response scale used was a four-point scale with 1 = *Never*; 2 = *Sometimes*; 3 = *Often*; and 4 = *Always*. For instance one of the items in this section is: *I take sick leave when I have a headache*. Item 15 in this section is only to be answered by respondents who have children. And item 16 required response from female respondents only.

The final part of the questionnaire has two questions. The first question requires the respondents to state their condition of their health at present. The second question required the respondents to indicate how many days of sick leave were taken in 2004.

A total of 441 questionnaires were sent to the randomly selected sample from UUM through internal mail. A self-addressed envelope was provided for the respondent to return the completed questionnaire. A total of 215 completed questionnaires were returned. Three questionnaires had had incomplete data and were rendered unusable. Thus the remaining usable questionnaires were 212 giving a response rate of 48.1%.

A total of 102 questionnaires were distributed among the sample from KDRM. For the purpose of distributing the questionnaires to the subjects at KDRM, assistance was sought form the Personnel Department to distribute the questionnaires according to the sample size determined in Table 3.2.2.2 above. The reason for doing so is because the KDRM personnel are working at various stations. It will be more expeditious for the Personnel Department to sent the questionnaire to the respondents and collect it from them within a stipulated time frame. A total of 97 questionnaires were returned. Three questionnaires had incomplete information and thus were rendered unusable. There were 94 usable questionnaires giving a response rate of 92%.

3.4 Data Analysis

Data was analyzed using SPSS V. 12. The data analysis techniques used in this study was descriptive analysis using frequency, mean and standard deviations. Independent t-test analysis was used to analyze gender differences in sick leave utilization. One-Way ANOVA was used to analyses group differences for age, experience and employment category.

3.5 Methodological Limitation

This study was carried out between two government departments in Kedah. It's not an exhaustive study of civil servant sick leave utilization. Thus the findings of the study cannot be generalized to all civil servants.

The data used in the study was secondary data. The accuracy of the data captured is very much dependent on the accuracy of the data recorded for each respondent by the participating organizations. The recording of the data at UUM is done electronically. The information contained in the electronic file that was obtained has to be considered to be reliable. The sick leave data obtained form KDRM was extracted manually from the personnel records. The data were entered into the personnel records manually by clerical staff. The researchers have no control as to the accuracy of the data entry into these records. We could only extract whatever information was recorded into these personnel

records and we assume that the information on sick leave found in these records is accurate.

Finally, the sick leave indicated in the survey questionnaire is self-reported. Many studies on employee absenteeism rely on self-reported absenteeism data, which include sick leave (Johns, 1994). The use of such data may result in self-serving bias, that is people under reporting actual absence (John, 1994). Therefore it is difficult to discount self-serving bias in this study. It would have been better if the attitudinal data obtained in this study through survey could be matched with the actual sick leave data obtained through secondary source. However, this requires a completely different study design compared to the present. As a result of methodological constraints, the two sets of data obtained in this study cannot be merged.

CHAPTER 4: FINDINGS ON PATTERN OF SICK LEAVE USAGE

4.1 Introduction

The study has five key objectives. First, the study will investigate difference is sick leave usage among male and female employees. Second, the study will investigate age differences in sick leave usage. Third, it will investigate sick leave usage according to the tenure of employees. Fourth, it will examine sick leave usage according to the different levels of employment. Finally, the study will investigate the attitude of employees towards sick leave usage.

4.2 Descriptive Statistics of Sample

4.2.1 Gender

Table 4.2.1 presents the data on the gender of the main sample. The total males in the main sample of the study were 1343 (65.2%) while females were 718 (34.8%). The number of males from UUM was 1153 (63.8%) while females were 655 (36.2%). The males from KDRM were 190 (75.1%) while females were 63 (24.9%).

Table 4.2.1 Gender

	Male		Female		Total
	N	%	N	%	
UUM	1153	63.8	655	36.2	1808
KDRM	190	75.1	63	24.9	253
Total	1343	65.2	718	34.8	2061

4.2.2 Age

The average age of the main sample was 37.22 years (SD = 8.67 years). The minimum age was 19.58 years and the maximum age was 63.41 years. The mean age of UUM staff was 36.17 years (SD = 8.34 years). The minimum age was 19.58 years and the maximum was 63.41 years. The mean age of KDRM staff was 44.70 years (SD = 7.20 years). The minimum age was 25.67 years and the maximum was 56 years.

4.2.3 Experience

The average experience of the main sample was 9.73 years (SD = 7.88 years). The minimum experience recorded was 1 month and the maximum was 39.94 years. The mean experience of UUM staff was 8.05 years (SD = 6.16 years). The minimum experience was 1 month and the maximum was 20.66 years. The mean experience of

KDRM staff was 21.79 years (SD = 8.33 years). The minimum experience was 2.08 years and the maximum was 39.94 years.

4.2.4 Employment Category

Table 4.2.4 shows the data on the level of employment of the main sample. There were 11 (0.6%) staff in the top management category and all were from UUM. In the professional management category, there are two sublevels i.e. academic and administration. Of the 1030 staff from UUM in the professional management category, 873 (84.75%) were academics and 157 (15.25%) are administration officers. Both these groups constituted more than one-half (57.0%) of the samples from UUM. There was 426 (23.6%) staff in the Support Staff 1 category and 341 (18.9%) in Support Staff 2 category in UUM. The KDRM sample consisted of 36 (14.2%) from the professional management (administration) group; 184 (72.7%) from Support Staff 1; and 33 (13.1%) Support Staff 2. Overall the sample consisted of 11 (0.5%) top management; 873 (42.4%) professional management (academic); 193 (9.4%) professional management (administration); 610 (29.6%) support staff 1; and 374 (18.1%) support staff 2.

Table 4.2.4 Category of employment

	UUM		KDRM		Overall	
	N	%	N	%	N	%
Top Management	11	0.6	0	0	11	0.5
Management: Academic	873	48.3	0	0	873	42.4
Management: Administration	157	8.7	36	14.2	193	9.4
Support 1	426	23.6	184	72.7	610	29.6
Support 2	341	18.9	33	13.1	374	18.1
Total	1808	100	253	100	2061	100

4.3 Descriptive Statistics of Sick Leave Usage

4.3.1 Sick Leave Data Available for Study

As noted in the methodology chapter sick leave data was collected over four years from 2001 – 2004. However not all participants to the survey worked for the full four years. As such the sick leave data available ranges from one year or less to four years. Table 4.3.1 provides the descriptive statistics of the available sick leave data obtained in this study. The UUM sample provides data from 1400 (77.4%) staff that had complete four years sick leave data. There were 130 (7.2%) who had only one year or less of sick leave data; 171 (9.5%) two years data; 107 (5.9%) who had three years of sick leave data. The sample from KDRM had data on sick leave for three complete years only.

Table 4.3.1 Available Sick Leave Data in the Survey

	UUM		KDRM		Overall	
	N	%	N	%	N	%
1 year or less only	130	7.2	0	0	130	6.3
2 years only	171	9.5	0	0	171	8.3
3 years only	107	5.9	253	100	360	17.5
4 years only	1400	77.4	0	0	1400	67.9
Total	1808	100	253	100	2061	100

4.3.2 Sick Leave Taken

4.3.2.1 Sick Leave Taken in UUM

Table 4.3.2.1 provides the descriptive statistics of sick leaven taken from 2001 – 2004 for the UUM. The results indicate that the mean sick leave taken in 2001 was 1.58 days (SD = 2.43 days). In 2002 the mean sick leave taken increased to 2.04 days (SD = 2.99 days). In 2003, the mean sick leave taken increased marginally to 2.08 days (SD = 3.14 days). And in 2004, the mean sick leave taken increased further to 3.34 days (SD = 7.41 days). The average sick leave per annum taken by UUM subjects is 2.47 days (SD = 3.50 days). A frequency distribution analysis of the average sick leave per annum indicated that 351 (19.4%) never took any sick leave (0 mean days); 1193 (66.0%) took between 1 – 5 days; 199 (11.0%) took between 6 – 10 days; 43 (2.4%) took between 11 –

15 days; 11 (0.6%) took between 16 – 20 days; and 10 (0.6%) had more than 20 days of average sick leave per annum.

Table 4.3.2.1 Sick leave taken from 2001-2004 for UUM

Year	N	Minimum	Maximum	Mean	SD
2001	1400	0	21	1.58	2.43
2002	1507	0	25	2.04	2.99
2003	1678	0	25	2.08	3.14
2004	1808	0	155	3.34	7.41
Avg/Yr	1808	0	38.75	2.47	3.50

4.3.2.2 Sick Leave Taken in KDRM

Table 4.3.2.2 provides the descriptive statistics of sick leaven taken from 2001 – 2004 for KDRM. In 2001 there were no sick leave data available. In 2002 the mean sick leave taken was 3.98 days (SD = 8.01 days). In 2003, the mean sick leave taken dropped to 3.55 days (SD = 6.60 days). And in 2004, the mean sick leave increased to 4.26 days (SD = 18.17 days). The average sick leave per annum taken by KDRM subjects is 3.94 days (SD = 6.06 days). A frequency distribution analysis of the average sick leave per annum indicated that 51 (20.2%) never took any sick leave (0 mean days); 140 (55.3%) took between 1 – 5 days; 39 (15.4%) took between 6 – 10 days; 9 (3.6%) took between

11 – 15 days; 6 (2.4%) took between 16 – 20 days; and 8 (3.2%) had more than 20 days of average sick leave per annum.

Table 4.3.2.2 Sick leave taken from 2001-2004 for KDRM

Year	N	Minimum	Maximum	Mean	SD
2001	0	0	0	0	0
2002	253	0	66	3.98	8.01
2003	253	0	57	3.55	6.60
2004	253	0	120	4.26	11.18
Avg/Yr	253	0	50.0	3.94	6.06

4.3.2.3 Overall Sick Leave Taken

The average sick leave per annum taken for the overall sample of 2061 subjects is 2.65 day (SD = 3.94 days. The minimum sick leave taken is 0 days and the maximum average sick leave per annum taken is 50 days. An analysis of the frequency distribution of average sick leave taken is given in Table 4.3.2.3.

Table 4.3.2.3 Frequency distribution of average sick leave per annum

Average Sick Leave Per Annum	N	%
0 days	402	19.5
1 - 5 days	1333	64.7
6 – 10 days	238	11.6
11 – 15 days	52	2.5
16 – 20 days	17	0.8
> 20 days	18	0.1

4.4 Gender Differences in Sick Leave Usage

4.4.1 Differences Between Male and Female Employees in UUM

Table 4.4.1 provides the descriptive data on sick leave taken by male and females employees in UUM from 2001 to 2004. The results indicate that in 2001, the mean sick leave taken by female employees was 1.70 days (SD=2.39 days) and that of male employees was 1.51 days (SD=2.45 days). In 2002 this figure increased to 2.10 days (SD=2.92 days) for females and that of males was 2.01 days (SD=3.03 days). In 2003, the mean sick leaven taken by male employees (M=2.15 days; SD=3.21 days) was higher than that taken by female employees (M=1.93 days; SD=2.96 days). In 2004, however, the mean sick leave taken by female (M=3.77 days; SD=9.34 days) was once again higher than that taken by male employees (M=3.10 days; SD=6.12 days). The overall

mean annual sick leave for female employees was 2.38 days (SD=3.43 days) and for male employees was 2.16 days (SD=3.02).

Table 4.4.1 Sick leave taken by male and female employees in UUM

	2001		2002		2003		2004		Total	
	M	F	M	F	M	F	M	F	M	F
N	889	511	972	535	1086	592	1153	655	1153	655
M	1.51	1.70	2.01	2.10	2.15	1.93	3.10	3.77	2.16	2.38
SD	2.45	2.39	3.03	2.92	3.21	2.96	6.12	9.34	3.02	3.43

4.4.2 Differences between Male and Female Employees in UUM by Employment Category

Table 4.4.2 provides the data of sick leave taken by male and female employees of UUM based on employment category. In the top management category the mean annual sick leave taken by male employee (M=2.15 days; SD=2.89 days) was higher than that of female employee (M=0.25 days). However there was only one female staff in this category. Among the academics, females had a higher mean annual sick leave (M=1.54 days; SD=2.89 days) compared to males (M=1.14 days; SD=2.18 days). In the administration category, female employees had a higher mean annual sick leave (M=2.63 days; SD=4.05 days) compared to male administration staff (M=2.48 days; SD=3.77 days). In support staff 1 category, females had a higher mean annual sick leave (M=3.22

days; SD=3.14 days) compared to males (M=2.94 days; SD=3.36 days). Finally for support staff 2, females again had a higher mean annual sick leave (M=4.35 days; SD=4.45 days) compared to males (M=3.24 days; SD=3.13 days). On the whole among female employees, female support staff 2 had the highest mean annual sick leave (M=4.35 days; SD=4.45 days) followed by female support staff 1 (M=3.22 days; SD=3.14 days), female administration staff (M=2.63 days; SD=4.05 days), female academic staff (M=1.54 days; SD=2.89 days), and female top management (M=0.25 days). Among the male employees, male support staff 2 had the highest mean annual sick leave (M=3.24 days; SD=3.13 days) followed by male support staff 1 (M=2.94 days; SD=3.36 days), male administration staff (M=2.48 days; SD=3.77 days), male top management (M=2.15 days; SD=2.89 days), and finally male academics (M=1.14 days; SD=2.18 days).

Table 4.4.2 Sick leave taken by male and female in UUM by employment category

	Top Mngt		Academic		Admin		Support 1		Support 2	
	M	F	M	F	M	F	M	F	M	F
N	10	1	511	362	105	52	268	158	259	82
M/yr	2.15	0.25	1.14	1.54	2.48	2.63	2.94	3.22	3.24	4.35
SD	2.89	0	2.18	2.89	3.77	4.05	3.36	3.14	3.13	4.45

4.4.3 Differences between Male and Female Employees in UUM by Age Group

Table 4.4.3 provides the data of sick leave taken by male and female employees in UUM according to different age groups. The results indicate that in the 19-30 year group, female employees had a higher mean annual sick leave (M=1.75 days; SD=2.80 days) compared to male employees (M=1.31 days; SD=1.87 days). In the 31-40 year group, female employees had a higher mean annual sick leave (M=2.71 days; SD=3.50 days) compared to male employees (M=2.20 days; SD=3.50 days). In the 41-50 year group, female employees had a higher mean annual sick leave (M=2.91 days; SD=4.08 days) compared to male employees (M=2.68 days; SD=3.51 days). Finally, in the above 50 years group, male employees had a higher mean annual sick leave (M=2.87; SD=3.69 days) compared to female employees (M=2.27 days; SD=3.46 days).

Table 4.4.3 Sick leave taken by male and female in UUM by age category

	19 – 30 yrs		31 – 40 yrs		41 – 50 yrs		> 50 yrs	
	M	F	M	F	M	F	M	F
N	296	247	441	246	306	146	110	16
M/yr	1.31	1.75	2.20	2.71	2.68	2.91	2.87	2.27
SD	1.87	2.80	2.98	3.50	3.51	4.08	3.69	3.46

4.4.4 Differences between Male and Female Employees in UUM by Experience

Table 4.4.4 provides the data on sick leave taken by UUM employees based on experience. The results indicate that in the less than 5 years working experience category, female employees had a higher mean annual sick leave (M=1.79 days; SD=2.30 days) compared to male employees (M=1.65 days; SD=2.39 days). In the 6-10 years category, females had a higher mean annual sick leave (M=3.19 days; SD=4.80 days) compared to males (M=2.33 days; SD=3.47 days). In the 11-15 years category, females had a higher mean annual sick leave (M=2.34 days; SD=3.03 days) compared to males (M=2.30 days; SD=3.10 days). In the 16-20 years category, females had a higher mean annual sick leave (M=3.58 days; SD=5.02 days) compared to males (M=3.14 days; SD=3.77 days). Finally in the 20-25 years category, males had a higher mean annual sick leave (M=3.49 days; SD=3.36 days) compared to females (M=3.37 days; SD=3.95 days).

Table 4.4.4 Sick leave taken by male and female in UUM by experience

	< 5 yrs		6-10 yrs		11-15 yrs		16-20 yrs		21-25 yrs	
	M	F	M	F	M	F	M	F	M	F
N	523	318	224	94	227	140	103	76	76	27
M/yr	1.65	1.79	2.33	3.19	2.30	2.34	3.14	3.58	3.49	3.37
SD	2.39	2.30	3.47	4.80	3.10	3.03	3.77	5.02	3.36	3.95

4.4.5 Differences Between Male and Female Employees in KDRM

Table 4.4.5 provide the data on sick leave taken by male and female employees in KDRM. The results indicate that in 2002, female employees had a higher mean sick leave (M=4.70 days; SD=9.53 days) compared to male employees (M=3.75 days; SD=7.45 days). In 2003, males had a higher mean sick leave (M=3.56 days; SD=7.13 days) compared to females (M=3.51 days; SD=4.73 days). In 2004, females had a higher mean sick leave (M=4.97 days; SD=12.27 days) compared to males (M=4.02 days; SD=10.81 days). Overall, female employees had a higher mean annual sick leave (M=4.39 days; SD=5.99 days) compared to male employees (M=3.78 days; SD=6.09 days).

Table 4.4.5 Sick leave taken by male and female in KDRM

	2002		2003		2004		Total	
	M	F	M	F	M	F	M	F
N	190	63	190	63	190	63	190	63
M	3.75	4.70	3.56	3.51	4.02	4.97	3.78	4.39
SD	7.45	9.53	7.13	4.73	10.81	12.27	6.09	5.99

4.4.6 Differences between Male and Female Employees in KDRM by Employment Category

Table 4.4.6 provides the data on sick leave taken by male and female KDRM employees based on employment category. The results indicate that female administration employees had a higher mean annual sick leave (M=3.10 days; SD=4.68 days) compared to male employees (M=2.84 days; SD=4.15 days). In support staff 1, female employee had a higher mean annual sick leave of 4.60 days (SD=6.36 days) compared to males (M=4.00 days; SD=6.53 days). In support staff 2 category, females again had a higher mean annual sick leave (M=4.33 days; SD=5.24 days) compared to males (M=3.69 days; SD=5.44 days).

Table 4.4.6 Sick leave taken by male and female in KDRM by employment category

	Administration		Support 1		Support 2	
	M	F	M	F	M	F
N	29	7	137	47	24	9
M/yr	2.84	3.10	4.00	4.60	3.69	4.33
SD	4.15	4.68	6.53	6.36	5.44	5.24

4.4.7 Differences between Male and Female Employees in KDRM by Age Group

Table 4.4.7 provides the data on sick leave taken by male and female KDRM employees based on age category. The results indicate that in the 19-30 years age category, female employees had a higher mean annual sick leave (M=6.50 days; SD=7.03 days) compared to male employees (M=1.79 days; SD=2.65 days). In the 31-40 years age group, males had a higher mean annual sick leave (M=2.07 days; SD=2.70 days) compared to females (M=1.96 days; SD=1.26 days). In the 41-50 years age group, females had a higher mean annual sick leave (M=5.01 days; SD=6.69 days) compared to males (M=4.12 days; SD=6.64 days). Finally, in the above 50 years age group, males had a higher mean annual sick leave (M=4.19 days; SD=6.22 days) compared to females (M=2.51 days; SD=4.22 days).

Table 4.4.7 Sick leave taken by male and female in KDRM by age group

	19 – 30 yrs		31 – 40 yrs		41 – 50 yrs		> 50 yrs	
	M	F	M	F	M	F	M	F
N	8	12	24	8	117	30	41	13
M/yr	1.79	6.50	2.07	1.96	4.12	5.01	4.19	2.51
SD	2.65	7.03	2.70	1.26	6.64	6.69	6.22	4.22

4.4.8 Differences between Male and Female Employees in KDRM by Experience

Table 4.4.8 provides the data on sick leave taken by male and female KDRM employees based on experience. The results indicate that female employees with less than 5 years experience had a higher mean annual sick leave (M=6.50 days; SD=3.85 days) compared to male employees (M=2.00 days; SD=1.41 days). Employees in the 6-10 years experience group, female had a higher mean annual sick leave (M=5.56 days; SD=7.25 days) compared to males (M=3.35 days; SD=4.49 days). Employees in the 11-15 years experience group, males had a higher mean annual sick leave (M=2.58 days; SD=5.10 days) compared to females (M=2.17 days; SD=1.40 days). Employees in the 16-20 years experience group, males had a higher mean annual sick leave (M=1.25 days; SD=2.23 days) compared to females (M=0.58 days; SD=1.17 days). In the 21-25 years experience group, female employees had a higher mean annual sick leave (M=4.83 days; SD=4.52 days) compared to male employees (M=4.20 days; SD=5.22 days). Finally in the above 25 years experience group, male employees had a higher mean annual sick leave (M=4.31 days; SD=7.51 days) compared to female employees (M=4.16 days; SD=7.29 days).

Table 4.4.8 Sick leave taken by male and female in KDRM by experience

	< 5 yrs		6-10 yrs		11-15 yrs		16-20 yrs		21-25 yrs		> 25 yrs	
	M	F	M	F	M	F	M	F	M	F	M	F
N	2	4	22	12	19	4	12	4	56	16	79	23
M/yr	2.00	6.50	3.35	5.56	2.58	2.17	1.25	0.58	4.20	4.83	4.31	4.16
SD	1.41	3.85	4.49	7.25	5.10	1.40	2.23	1.17	5.22	4.52	7.51	7.29

4.4.9 Overall Differences between Male and Female

Table 4.4.9 provides the data for differences between male and female employees for the total sample. The results indicate that the mean annual sick leave for female employees was higher (M=2.57 days; SD=3.76 days) compared to male employees (M=2.39 days; SD=3.66 days).

Table 4.4.9 Overall differences between male and female

	Male	Female
N	1343	718
Mean/Year	2.39	2.57
SD	3.66	3.76

4.4.10 Overall Differences between Male and Female Employees by Employment Category

Table 4.4.10 provides the data for differences between male and female employees based on employment category for the total sample. The results for top management was similar for that of UUM employees as reported in Table 4.4.2 as only the UUM sample has top management category. Similarly for academic, only UUM has employees in the academic category and the results are similar as reported in Table 4.4.2 above. For the administration personnel, the results indicate that female employees had a

slightly higher mean annual sick leave (M=2.83 days; SD=4.13 days) compared to male employees (M=2.68 days; SD=3.97 days). In the support staff 1 group, females again had a higher mean annual sick leave (M=3.77 days; SD=4.20 days) compared to males (M=3.54 days; SD=4.82 days). In the support staff 2 group, females had a higher mean annual sick leave (M=5.10 days; SD=5.75 days) compared to males (M=3.49 days; SD=5.51 days).

Table 4.4.10 Overall differences for male and female by employment category

	Top Mngt		Academic		Admin		Support 1		Support 2	
	M	F	M	F	M	F	M	F	M	F
N	10	1	511	362	134	59	405	205	283	91
M/Yr	2.15	0.25	1.14	1.54	2.68	2.83	3.54	3.77	3.49	5.10
SD	2.89	0	2.18	2.89	3.97	4.13	4.82	4.20	3.51	5.75

4.4.11 Overall Differences between Male and Female Employees by Age Group

Table 4.4.11 provides the data for differences between male and female employees based on age group for the total sample. The results indicate that in the 19-30 years age group, female employees had a higher mean annual sick leave (M=1.97 days; SD=3.25 days) compared to male employees (M=1.32 days; SD=1.89 days). In the 31-40 years age group, females had a higher mean annual sick leave (M=2.69 days; SD=3.46

days) compared to males (M=2.20 days; SD=2.96 days). In the 41-50 years age group, females again had a higher mean annual sick leave (M=3.26 days; SD=4.67 days) compared to males (M=3.08 days; SD=4.63 days). Finally in the above 50 years age group, male employees had a higher mean annual sick leave (M=3.23 days; SD=4.53 days) compared to female employees (M=2.38 days; SD=3.75 days).

Table 4.4.11 Overall differences between male and female by age group

	19 – 30 yrs		31 – 40 yrs		41 – 50 yrs		> 50 yrs	
	M	F	M	F	M	F	M	F
N	304	259	465	254	423	176	151	29
M/yr	1.32	1.97	2.20	2.69	3.08	3.26	3.23	2.38
SD	1.89	3.25	2.96	3.46	4.63	4.67	4.53	3.75

4.4.12 Overall Differences between Male and Female Employees by Experience

Table 4.4.12 provides the data for differences between male and female employees based on experience for the total sample. The results indicate that in the less than 5 years experience group, female employees had a higher mean annual sick leave (M=1.84 days; SD=2.37 days) compared to male employees (M=1.65 days; SD=2.39 days). For the 6-10 years experience group, females had a higher mean annual sick leave (M=3.45 days; SD=5.14 days) compared to males (M=2.42 days; SD=3.58 days). In the 11-15 years experience group, females had a slightly higher mean annual sick leave

(M=2.34 days; SD=3.00 days) compared to males (M=2.32 days; SD=3.28 days). In the 16-20 years experience group, females had a higher mean annual sick leave (M=3.42 days; SD=4.94 days) compared to males (M=2.94 days; SD=3.68 days). In the 21-25 years experience group, females again had a higher mean annual sick leave (M=3.91 days; SD=3.79 days) compared to males (M=3.79 days; SD=4.25 days). Finally, in the above 25 years experience group, male employees had a higher mean annual sick leave (M=4.31 days; SD=7.51 days) compared to female employees (M=4.16 days; SD=7.29 days).

Table 4.4.12 Overall differences between male and female by experience

	< 5 yrs		6-10 yrs		11-15 yrs		16-20 yrs		21-25 yrs		> 25 yrs	
	M	F	M	F	M	F	M	F	M	F	M	F
N	525	322	246	106	246	144	115	80	132	43	79	23
M/yr	1.65	1.84	2.42	3.45	2.32	2.34	2.94	3.42	3.79	3.91	4.31	4.16
SD	2.39	2.37	3.58	5.14	3.28	3.00	3.68	4.94	4.25	4.18	7.51	7.29

4.4.13 Differences in Mean Sick Leave Between Male and Female

Table 4.4.13 provides the results of the independent t-test for differences between male and female for UUM sample, KDRM sample, and the total sample. The results indicate that for all three samples, there were no significant differences in the mean annual sick leave taken by male and female employees in all three samples. Although

female employees in all three samples had a higher mean annual sick leave compared to male employees, nevertheless this difference is not statistically significant.

Table 4.4.13 Differences in mean sick leave between male and female

	Gender	N	Mean	SD	t	Sig.
UUM	M	1153	2.16	3.02		
	F	655	2.38	3.43	1.40	0.16
KDRM	M	190	3.78	6.07		
	F	63	4.39	5.99	0.70	0.49
Overall	M	1343	2.39	3.66		
	F	718	2.57	3.76	0.97	0.33

$p < 0.05$

4.5 Age Differences in Sick Leave

4.5.1 Differences in Mean Sick Leave According to Age Group for UUM

Table 4.5.1 provides the results of the One-way ANOVA for age differences in mean annual sick leave taken for the UUM sample. The results indicate significant differences in mean annual sick leave taken between the age groups [$F(3, 1804) = 15.67$; $p = 0.0001$]. The results indicate that the mean annual sick leave increases from 1.51 days for the 19-30 years age group to 2.39 days (31-40 years) to 2.75 days (41-50 years) and to 2.80 days for the above 50 years age group.

Table 4.5.1 Age differences in sick leave taken for UUM

Age Group	N	Mean	SD	F	Sig.
19-30 yrs	543	1.51	2.35	15.67	0.0001*
31-40 yrs	687	2.39	3.18		
41-50 yrs	452	2.75	3.70		
> 50 yrs	126	2.80	3.66		
Total	1808	2.24	3.18		

* $p < 0.05$

Table 4.5.1.1 provides the multiple comparisons of means using Tamhane's test. The results indicate that significant differences between the 19-30 years age group and the rest of the other age groups. This indicates that the difference in mean annual sick leave between the 19-30 and 31-40 years age groups is significant ($p = 0.0001$). Further the difference in mean annual sick leave between the 19-30 and 41-50 years age groups is also significant ($p = 0.0001$). Finally, the difference in mean annual sick leave between the 19-30 and above 50 years age groups is also significant ($p = 0.001$).

Table 4.5.1.1 Multiple comparisons of means using Tamhane test

Age Group	Mean	19-30 yrs	31-40 yrs	41-50 yrs	> 50 yrs
19-30 yrs	1.51	-	0.0001*	0.0001*	0.001*
31-40 yrs	2.39	0.0001*	-	0.42	0.81
41-50 yrs	2.75	0.0001*	0.42	-	1.00
> 50 yrs	2.80	0.001*	0.81	1.00	-

4.5.2 Differences in Mean Sick Leave According to Age Group for KDRM

Table 4.5.2 provides the results of the One-way ANOVA for age differences in mean annual sick leave taken for the KDRM sample. The results indicate no significant differences in mean annual sick leave taken between the age groups [F (3, 249) = 1.32; p = 0.27].

Table 4.5.2 Age differences in sick leave taken for KDRM

Age Group	N	Mean	SD	F	Sig.
19-30 yrs	20	4.62	6.07		
31-40 yrs	32	2.04	2.40		
41-50 yrs	147	4.30	6.64	1.32	0.27
> 50 yrs	54	3.78	5.81		
Total	253	3.93	6.06		

* $p < 0.05$

4.5.3 Overall Differences in Mean Sick Leave According to Age Group

Table 4.5.3 provides the results of the One-way ANOVA for age differences in mean annual sick leave taken for the total sample. The results indicate significant differences in mean annual sick leave taken between the age groups [F (3, 2057) = 18.71; p = 0.0001]. The results indicate that the mean annual sick leave increases from 1.62 days for the 19-30 years age group to 2.37 days (31-40 years) to 3.13 days for the 41-50

years age group. The mean annual sick leave then drop to 3.09 days for the above 50 years age group. The results indicate that the sick leave taken increases with age and past 50 years the amount of sick leave taken declines.

Table 4.5.3 Overall age differences in sick leave

Age Group	N	Mean	SD	F	Sig.
19-30 yrs	563	1.62	2.62	18.71	0.0001*
31-40 yrs	719	2.37	3.15		
41-50 yrs	599	3.13	4.64		
> 50 yrs	180	3.09	4.42		
Total	2061	2.45	3.69		

* $p < 0.05$

Table 4.5.3.1 provides the multiple comparisons of means using Tamhane's test. The results indicate that significant differences between the 19-30 years age group and 31-40 years age group ($p = 0.0001$). There were also significant differences between the 19-30 years age group and 41-50 years age group ($p = 0.001$). Significant differences were also found between the 19-30 years age group and the above 50 years age group ($p = 0.001$). The results also indicate significant differences between the 31-40 years age group and 41-50 years age group ($p = 0.004$).

Table 4.5.3.1 Multiple comparison of Means using Tamhane test

Age Group	Mean	19-30 yrs	31-40 yrs	41-50 yrs	> 50 yrs
19-30 yrs	1.62	-	0.0001*	0.0001*	0.0001*
31-40 yrs	2.37	0.0001*	-	0.004*	0.22
41-50 yrs	3.13	0.000*	0.004*	-	1.00
> 50 yrs	3.09	0.0001*	0.22	1.00	-

*p < 0.05

4.6 Differences in Sick Leave Based on Experience

4.6.1 Differences in Mean Sick Leave According to Experience for UUM

Table 4.6.1 provides the results of the One-way ANOVA for differences in mean annual sick leave base on experience for the UUM sample. The results indicate significant differences in mean annual sick leave [F (4, 1083) = 16.59; p = 0.0001]. The results indicate mean annual sick leave increases with experience. However there was a slight drop in the mean annual sick leave for the 11-15 years group.

Table 4.6.1 Differences in sick leave according to experience for UUM

Experience	N	Mean	SD	F	Sig.
< 5 yrs	841	1.70	2.36	16.59	0.0001*
6 -10 yrs	318	2.58	3.92		
11-15 yrs	367	2.32	3.07		
16 -20 yrs	179	3.32	4.34		
21-25 yrs	103	3.46	3.51		
Total	1808	2.24	3.18		

*$p < 0.05$

Table 4.6.1.1 provides the multiple comparisons of means using Tamhane's test. The results indicate significant differences in mean annual sick leave between the less than 5 years experience group and those with 6 – 10 years experience ($p = 0.02$). There were significant differences in mean annual sick leave between the less than 5 years experience group and those with 11-15 years experience ($p = 0.006$). Significant differences in mean annual sick leave were also found between the less than 5 years experience group and those with 16-20 years experience ($p = 0.0001$). There were also significant differences in mean annual sick leave between the less than 5 years experience group and those with 21-25 years experience ($p = 0.0001$). Finally significant differences in mean annual sick was also found between the 11-15 years experience group and the 21-25 years experience group ($p = 0.03$).

Table 4.6.1.1 Multiple comparison of Means using Tamhane test

	Mean	< 5 yrs	5.01-10 yr	10.01-15 yr	15.01-20 yr	20.01-25 yr
< 5 yrs	1.70	-	0.002*	0.006*	0.0001*	0.0001*
5.01-10 yrs	2.58	0.002*	-	0.98	0.46	0.30
10.01-15 yrs	2.32	0.006*	0.98	-	0.06	0.03*
15.01-20 yrs	3.32	0.0001*	0.46	0.06	-	1.00
20.01-25 yrs	3.46	0.0001*	0.30	0.03*	1.00	-

*$p < 0.05$

4.6.2 Differences in Mean Sick Leave According to Experience for KDRM

Table 4.6.2 provides the results of the One-way ANOVA for differences in mean annual sick leave base on experience for the KDRM sample. The results indicate no significant differences in mean annual sick leave [$F (5, 247) = 1.14$; $p = 0.34$].

Table 4.6.2 Differences in sick leave according to experience for KDRM

Experience	N	Mean	SD	F	Sig.
< 5 yrs	6	5.00	3.84	1.14	0.34
6 -10 yrs	34	4.13	5.62		
11-15 yrs	23	2.51	4.64		
16 -20 yrs	16	1.08	1.99		
21-25 yrs	72	4.34	5.05		
> 25 yrs	102	4.28	7.43		
Total	253	3.93	6.06		

*p < 0.05

4.6.3 Overall Differences in Mean Sick Leave According to Experience

Table 4.6.3 provides the results of the One-way ANOVA for differences in mean annual sick leave base on experience for the total sample. The results indicate significant differences in mean annual sick leave [F (5, 2055) = 19.02; p = 0.0001]. Similar to the results of the UUM sample in Table 4.6.1, the results indicate mean annual sick leave increases with experience but there was a slight drop in the mean annual sick leave for the 11-15 years group.

Table 4.6.3 Overall differences in sick leave according to experience

Experience	N	Mean	SD	F	Sig.
< 5 yrs	847	1.72	2.38		
6 -10 yrs	352	2.73	4.13		
11-15 yrs	390	2.33	3.18		
16 -20 yrs	195	3.14	4.24	19.02	0.0001*
21-25 yrs	175	3.82	4.22		
> 25 yrs	102	4.28	7.43		
Total	2061	2.45	3.69		

*p < 0.05

Table 4.6.3.1 provides the multiple comparisons of means using Tamhane's test. The results indicate significant differences in mean annual sick leave between the less than 5 years experience group and those with 6 – 10 years experience (p = 0.0001). There were significant differences in mean annual sick leave between the less than 5 years experience group and those with 11-15 years experience (p = 0.01). Significant differences in mean annual sick leave were also found between the less than 5 years experience group and those with 16-20 years experience (p = 0.0001). There were also significant differences in mean annual sick leave between the less than 5 years experience group and those with 21-25 years experience (p = 0.0001). There were also significant differences in mean annual sick leave between the less than 5 years experience group and those with more than 25 years experience (p = 0.01). Finally significant differences in

mean annual sick was also found between the 11-15 years experience group and the 21-25 years experience group (p = 0.001).

Table 4.6.3.1 Multiple comparison of Means using Tamhane test

Experience	Mean	< 5 yrs	5.01-10	10.01-15	15.01-20	20.01-25	> 25 yrs
< 5 yrs	1.72	-	0.0001*	0.01*	0.0001*	0.0001*	0.01*
5.01-10	2.73	0.0001*	-	0.89	0.99	0.08	0.51
10.01-15	2.33	0.01*	0.89	-	0.25	0.001*	0.15
15.01-20	3.14	0.0001*	0.99	0.25	-	0.86	0.92
20.01-25	3.82	0.0001*	0.08	0.001*	0.86	-	1.00
> 25 yrs	4.28	0.01*	0.51	0.15	0.92	1.00	-

*p < 0.05

4.6.4 Differences in Mean Sick Leave According to Employment Category for UUM

Table 4.6.4 provides the results of the One-way ANOVA for differences in mean annual sick leave of different employment categories for UUM sample. The results indicate significant differences in mean annual sick leave among the different employment categories [F (4, 1803) = 43.19; p = 0.0001].

Table 4.6.4. Differences in sick leave according to employment category for UUM

	N	Mean	SD	F	Sig.
Top Mngt	11	1.98	2.80	43.19	0.0001*
Academic	873	1.31	2.50		
Admin	157	2.52	3.28		
Support 1	426	3.04	3.52		
Support 2	341	3.51	3.85		
Total	1808	2.24	3.18		

*$p < 0.05$

Table 4.6.4.1 provides the multiple comparisons of means using Tamhane's test. The results indicate significant differences in mean annual sick leave between academic and administration personnel ($p = 0.02$). There were significant differences in mean annual sick leave between academic and support staff 1 ($p = 0.0001$). Finally significant differences in mean annual sick was also found between academic and support staff 2 ($p = 0.0001$).

Table 4.6.4.1 Multiple comparison of Means using Tamhane test

	Mean	Top Mngt	Academic	Admin	Support 1	Support 2
Top Mngt	1.98	-	0.99	1.00	0.94	0.67
Academic	1.31	0.99	-	0.02*	0.0001*	0.0001*
Admin	2.52	1.00	0.02*	-	0.76	0.07
Support 1	3.04	0.94	0.0001*	0.76	-	0.48
Support 2	3.51	0.67	0.0001*	0.07	0.48	-

*$p < 0.05$

4.6.5 Differences in Mean Sick Leave According to Employment Category for KDRM

Table 4.6.5 provides the results of the One-way ANOVA for differences in mean annual sick leave of different employment categories for KDRM sample. The results indicate significant differences in mean annual sick leave among the different employment categories [$F(2, 250) = 0.66$; $p = 0.52$].

Table 4.6.5 Differences in mean sick leave according to employment category for KDRM

	N	Mean	SD	F	Sig
Admin	36	2.89	4.19	0.66	0.52
Support 1	184	4.15	6.48		
Support 2	33	3.86	5.31		
Total	253	3.94	6.06		

* $p < 0.05$

4.6.6 Overall Differences in Mean Sick Leave According to Employment Category

Table 4.6.6 provides the results of the One-way ANOVA for differences in mean annual sick leave of different employment categories for the total sample. The results indicate significant differences in mean annual sick leave [F (4, 2056) = 42.64; p = 0.0001].

Table 4.6.6 Overall differences in mean sick leave according to employment category

	N	Mean	SD	F	Sig.
Top Mngt	11	1.98	2.80	42.64	0.0001*
Academic	873	1.43	2.77		
Admin	193	2.73	4.01		
Support 1	610	3.62	4.62		
Support 2	374	3.89	4.22		
Total	2061	2.65	3.94		

* $p < 0.05$

Table 4.6.6.1 provides the multiple comparisons of means using Tamhane's test. The results indicate significant differences in mean annual sick leave between academic and administration personnel ($p = 0.0001$); between academic and support staff 1 ($p = 0.0001$); and between academic and support staff 2 ($p = 0.0001$). There was also a significant difference in mean annual sick leave between administration and support staff 2 ($p = 0.02$).

Table 4.6.6.1 Multiple comparison of Means using Tamhane test

	Mean	Top Mngt	Academic	Admin	Support 1	Support 2
Top Mngt	1.98	-	1.00	0.99	0.59	0.40
Academic	1.43	1.00	-	0.0001*	0.0001*	0.0001*
Admin	2.73	0.99	0.0001*	-	0.09	0.02*
Support 1	3.62	0.59	0.0001*	0.09	-	0.99
Support 2	3.89	0.40	0.0001*	0.02*	0.99	-

* $p < 0.05$

CHAPTER 5: FINDING ON ATTITUDE TOWARDS SICK LEAVE USAGE

5.1 About the Sample

5.1.1 Gender

Table 5.1.1 presents the data on the gender of the respondents. The total male respondents in the study were 166 (54.2%) while females were 140 (45.8%). The number of male respondents from UUM was 116 (54.7%) while females were 96 (45.3%). The male respondents from KDRM were 50 (53.2%) while females were 44 (46.8%).

Table 5.1.1 Gender

	Male		Female		Total
	N	%	N	%	
UUM	116	54.7	96	45.3	212
KDRM	50	53.2	44	46.8	94
Total	166	54.2	140	45.8	306

5.1.2 Age

The average age of all the respondents were 37.60 years (SD = 8.89 years). The minimum age was 23 years and the maximum age was 63 years. The mean age of UUM respondents was 35.51 years (SD = 8.25 years). The minimum age was 23 years and the maximum was 63 years. The mean age of KDRM respondents was 42.23 years (SD = 8.55 years). The minimum age was 24 years and the maximum was 55 years.

5.1.3 Experience

The average experience for all the respondents was 11.22 years (SD = 8.59 years). The minimum experience recorded was 1 month and the maximum was 35 years. The mean experience of UUM respondents was 8.20 years (SD = 6.22 years). The minimum experience was 1 month and the maximum was 35 years. The mean experience of KDRM respondents was 17.96 years (SD = 9.34 years). The minimum experience was 1 years and the maximum was 35 years.

5.1.4 Race

Table 5.1.4 provides the data on the race of the respondents. The majority of the respondents in the total sample were Malays (97%). Chinese constituted only 1.3% and Indians 1%. Other races were only 0.6%.

Table 5.1.4 Race

	UUM		KDRM		Total	
	N	%	N	%	N	%
Malay	207	97.6	90	95.7	297	97.1
Chinese	1	0.5	3	3.2	4	1.3
Indian	3	1.4	0	0	3	1.0
Others	1	0.5	1	1.1	2	0.6
Total	212	100	94	100	306	100

5.1.5 Marital Status

Table 5.1.5 provides the data on the marital status of the respondents. Eighty one percent of respondents from UUM were married while 19% were single. Almost 93% of respondents from Custom were married while only 7% were single. In the combined sample 84.6% of respondents were married while 15.4% were single.

Table 5.1.5 Marital status

	UUM		KDRM		Total	
	N	%	N	%	N	%
Married	172	81.1	87	92.6	259	84.6
Single	40	18.9	7	7.4	47	15.4
Total	212	100	94	100	306	100

5.1.6 Employment Category

Table 5.1.6 shows the data on employment of the respondents. There were 9 (1.9%) respondents in the top management category and all were from UUM. In the professional management category, there are two sublevels i.e. academic and administration. UUM academic staff constitutes 24.9% (N=74) of the overall sample while the administration staff of UUM comprised 12.0% (N=25) of the UUM sample. There were 49 (23.6%) respondents in the Support Staff 1 category and 56 (26.9%) in Support Staff 2 category in UUM. The KDRM sample consisted of 48 (25.8%) from the professional management (administration) group; 41 (46.1%) from Support Staff 1; and 25 (28.1%) Support Staff 2. Overall the sample consisted of 4 (1.3%) top management; 74 (24.9%) professional management (academic); 48 (16.2%) professional management (administration); 90 (30.3%) support staff 1; and 81 (27.3%) support staff 2.

Table 5.1.6 Category of employment

	UUM		KDRM		Total	
	N	%	N	%	N	%
Top Management	4	1.9	0	0	4	1.3
Management: Academic	74	35.6	0	0	74	24.9
Management: Administration	25	12.0	23	25.8	48	16.2
Support 1	49	23.6	41	46.1	90	30.3
Support 2	56	26.9	25	28.1	81	27.3
Total	208	100	89	100	297	100

5.1.7 Status of Employment

Table 5.1.7 provides the data on the status of employment of the respondents. Almost 93% of respondents from UUM are permanent employees while 7% are temporary employees and 1% is contract employee. The respondents from KDRM were all permanent employees.

Table 5.1.7 Status of Employment

	UUM		KDRM		Total	
	N	%	N	%	N	%
Permanent	196	92.5	94	100	290	94.8
Temporary	15	7.1	0	0	15	4.9
Contract	1	0.5	0	0	1	0.3
Total	212	100	94	100	306	100

5.1.8 Sick Leave Taken in 2004

Table 5.1.8 provides the data on self-reported sick leave taken by the respondents in 2004. The results indicate that the respondents from UUM took on average 3.34 days (SD=5.83 days) of sick leave in 2004. In contrast, the respondents from KDRM took on average 3.58 days (SD=6.57 days) in 2004. For the combine sample, the average sick leave taken in 2004 was 3.41 days (SD=6.05 days).

Table 5.1.8 Self-reported sick leave taken in 2004

	UUM	KDRM	Overall
N	202	89	291
Minimum	0	0	0
Maximum	60	45	60
Mean	3.34	3.58	3.41
SD	5.83	6.57	6.05

5.1.9 Frequency of Sick Leave Taken While in Service

Table 5.1.9 provides the frequency of sick leave taken by the respondents while in service with the government. The results indicate that 11.8% of respondents from UUM indicated they never took any sick leave. Almost 86% indicated that they sometimes took sick leave while 1% took sick leave often and another 1% took sick leave always. Five percent of respondents from KDRM indicated they never took sick leave while almost 90% indicated they sometimes took sick leave. Two percent indicated they often took sick leave while 3% indicated they always took sick leave. For the overall sample, 9.9% indicated they never took sick leave while 86.9% indicated sometimes they took sick leave. There were 5 respondents (1.6%) who indicated they often took sick leave and another 5 respondents (1.6%) who indicated they always took sick leave.

Table 5.1.9 Frequency of sick leave taken while in service

	UUM		KDRM		Overall	
	N	%	N	%	N	%
Never	25	11.8	5	5.3	30	9.9
Sometimes	182	85.8	84	89.4	266	86.9
Often	3	1.4	2	2.1	5	1.6
Always	2	0.9	3	3.2	5	1.6

5.1.10 Summary of Sick Leave Taken

Table 5.1.10 provides a summary of the self-reported sick leave taken by those who indicated never, sometimes, often and always took sick leave as in Table 5.1.9. Interestingly, respondents who indicated they never took any sick leave reported taking on average 0.17 days (SD=0.53 days) of sick leave in 2004. Respondents who indicated they sometimes took sick leave took on average 3.47 days (SD=5.93 days) of sick leave in 2004. Respondents from UUM had a higher average (M=3.60 days; SD=5.97 days) compared to respondents from KDRM (M=3.19 days; SD=5.96 days). Respondents who indicated they often took sick leave took on average 11.20 days (SD=7.19 days) sick leave in 2004. Once again respondents from UUM had a higher mean sick leave (M=13.0 days; SD=7.00 days) compared to respondents from KDRM (M=8.50 days; SD=9.19 days). Finally, respondents who indicated they always took sick leave took on average 12 days (SD=) of sick leave in 2004. Respondents from KDRM had a higher

mean sick leave (M=16.0 days; SD=13.53 days) compared to respondents from UUM (M=6.0 days; SD=8.49 days).

Table 5.1.10 Summary of sick leave taken

	Never			Sometimes			Often			Always		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD
UUM	25	0.12	0.44	172	3.60	5.97	3	13.0	7.00	2	6.00	8.49
KDRM.	5	0.40	0.89	79	3.19	5.96	2	8.50	9.19	3	16.00	13.53
O'all	30	0.17	0.53	251	3.47	5.93	5	11.20	7.19	5	12.0	

5.1.11 Health Status

Table 5.1.11 provides the data on the self-assessment of the respondent's health. The respondents were asked to indicate if their health at the point of the survey was excellent, good or poor. The results indicate that 40% of the respondents indicated their health was in excellent condition; 56% felt their health was in good condition; and 4% indicated that their health was in poor condition.

Table 5.1.11 Health status

Condition	N	%
Excellent	120	40.1
Good	167	55.9
Poor	12	4.0

5.2 Attitude Towards Sick Leave Usage

5.2.1 Overall Attitude Towards Sick Leave Usage

Table 5.2.1 provides a list of common reason why employees take sick leave. Employees take sick leave when they are genuinely sick and when the doctor certify them to be unfit for work. Sometimes sick leave is taken to preserve annual leave or when annual leave is exhausted. Sick leave is also taken by employees to add on to the annual leave taken in order to extend the length of leave. Employees also resort to taking sick leave when their superior rejects their leave application. Except for reasons of being really sick and certified unfit to work by a doctor, the rest of the reasons listed in Table 5.2.1 is deemed by Rogers and Herting (1993) to be elective sick leave. Elective sick leave are cases where "the employee could conceivably come to work, with no detriment on health, health of other employees or job productivity, but the employee elects not to do so". (p. 215). Taking sick leave in this manner is essentially an attitudinal predisposition on the part of the employee who takes sick leave because they elect not to

come to work although they are not genuinely ill to come to work. Therefore an element of choice exist on the part of the employee whether to elect to come to work or not to do so.

Based on the results of Table 5.2.1, 69.2% of the total respondents indicated they never took sick leave when they have a cold. However 27% indicated they sometimes would while 2% indicated they either often did or always do so. Using sick leave to take a day off from work is not a common occurrence among the respondents to the survey. The results indicated 93.8% would never take sick leave to avoid coming to work while 6.2% indicated they sometimes would. Sick leave is also taken when family members fall sick. The results indicated that 74.8% never took sick leave to care for a family member who falls sick while 22.9% indicated that they sometimes do. However 1% of the respondents indicated that they either often or always take sick leave to care for a family member who is ill. Sick leave can also be taken to preserve annual leave. The results indicate that 95.4% of the respondents never do such a thing while 3.9% indicate that they sometime do so. Only 2 respondents (0.7%) indicated that they often do so.

The study also found that almost 91% of the respondents never took sick leave as a substitute leave when their annual sick leave is exhausted. However 7% of the respondents sometimes do so while 1% often does so while another 1% always does that. Interestingly, the study found that 11.4% of the respondents never took sick leave although a doctor certify that the respondent is unfit for work. On the other hand, 58%

sometimes take sick leave when the doctor certify them to be unfit for work 14% and 16.7% does so often and always respectively.

The findings of the study indicate that almost 29% of the respondents sometimes take sick leave when they have a headache and 16.7% sometimes take sick leave when they have a backache. However, a relatively small proportion often take (1.3%) or always take (0.7%) sick leave when they have a headache. Similarly, only 0.7% often took sick leave when they have a backache and none do so always. Seventeen percent of the respondents indicated that they sometimes take sick leave when they have an appointment with a doctor. Taking sick leave to attend to personal matters is not a common practice among the respondents. The study found 96% indicated they never took sick leave to attend to personal matters while only 3.3 indicated they sometimes do. Similarly almost all the respondents (99%) indicated they never took sick leave for recreational purposes. The majority of the respondents also indicated that they never took sick leave to add on to approved sick leave (94.8%) or when annual sick leave is rejected (95.1%). However 4.2% of the respondents indicated that they sometimes take sick leave to add on to approved leave and 3.3% sometimes take sick leave when annual leave application is rejected.

Respondents with children were asked if they take sick leave to look after a sick child. The study found almost 58% never did so; 34.5% sometimes do so; 5.8% often do so; and 1.8% always does so. Finally female respondents were asked if the take sick leave when they have their menses. The study found 78% of the female respondents

never take sick leave when they have menses. However, almost 20% sometimes take sick leave when they have their menses and 0.8% and 1.5% often and always take sick respectively when they have their menses.

Table 5.2.1 Overall attitude towards sick leave usage

	Never		Sometimes		Often		Always		N
	N	%	N	%	N	%	N	%	
Really sick	21	6.9	194	63.4	35	11.4	56	18.3	306
Cold	211	69.2	82	26.9	6	2.0	6	2.0	305
Day off from work	286	93.8	19	6.2	0	0	0	0	305
Family member sick	229	74.8	70	22.9	4	1.3	3	1.0	306
Preserve annual leave	292	95.4	12	3.9	2	0.7	0	0	306
Leave exhausted	278	90.8	22	7.2	3	1.0	3	1.0	306
Certified unfit	35	11.4	177	57.8	43	14.1	51	16.7	306
Headache	212	69.3	88	28.8	4	1.3	2	0.7	306
Backache	253	82.7	51	16.7	2	0.7	0	0	306
Appointment with doc.	247	80.7	52	17.0	3	1.0	4	1.3	306
Attend personal matter	294	96.1	10	3.3	1	0.3	1	0.3	306
Recreational purpose	303	99.0	3	1.0	0	0	0	0	306
Add to approve leave	290	94.8	13	4.2	2	0.7	1	0.3	306
Annual leave rejected	291	95.1	10	3.3	1	0.3	4	1.3	306
Child sick	129	57.9	77	34.5	13	5.8	4	1.8	223
Menses	103	78.0	26	19.7	1	0.8	2	1.5	132

5.2.2 Attitude Towards Sick Leave Usage for UUM

Table 5.2.2 presents the results of the attitude towards sick leave usage among UUM respondents. The results are very similar to that obtained for the overall sample.

Table 5.2.2 Attitude towards sick leave usage for UUM

	Never		Sometimes		Often		Always		
	N	%	N	%	N	%	N	%	N
Really sick	14	6.6	126	59.4	28	13.2	44	20.8	212
Cold	149	70.6	53	25.1	3	1.4	6	2.8	211
Day off from work	199	93.9	13	6.1	0	0	0	0	212
Family member sick	164	77.4	43	20.3	3	1.4	2	0.9	212
Preserve annual leave	202	95.3	9	4.2	1	0.5	0	0	212
Leave exhausted	197	92.9	10	4.7	2	0.9	3	1.4	212
Certified unfit	24	11.3	112	52.8	33	15.6	43	20.3	212
Headache	147	69.3	61	28.8	4	1.9	0	0	212
Backache	175	82.5	36	17.0	1	0.5	0	0	212
Appointment with doc.	167	78.8	39	18.4	2	0.9	4	1.9	212
Attend personal matter	203	95.8	8	3.8	1	0.5	0	0	212
Recreational purpose	209	98.6	3	1.4	0	0	0	0	212
Add to approve leave	200	94.3	9	4.2	2	0.9	1	0.5	212
Annual leave rejected	201	94.8	7	3.3	1	0.5	3	1.4	212
Child sick	85	60.7	42	30.0	10	7.1	3	2.2	140
Menses	68	75.6	19	21.1	1	1.1	2	2.2	90

5.2.3 Attitude Towards Sick Leave Usage for KDRM

Table 5.2.3 provides the results of the attitude towards sick leave usage among respondents from KDRM. The results are quite close to that obtained for the overall sample. However on a few items the results are quite striking. Among respondents from KDRM, a higher proportion (12.8%) indicated they sometime take sick leave when their annual leave is exhausted. Further, the results indicated that a smaller proportion of the respondents (8.5%) always take sick leave when a doctor certify them unfit for work. The results also indicated that a higher proportion (42.2%) of respondents with child sometimes take sick leave when the child is sick. Finally, a slightly lower proportion (16.7%) of female respondents indicate that they sometimes take sick leave when they have their menses.

Table 5.2.3 Attitude towards sick leave usage for KDRM

	Never		Sometimes		Often		Always		N
	N	%	N	%	N	%	N	%	
Really sick	7	7.4	68	72.3	7	7.4	12	12.8	94
Cold	62	66.0	29	30.9	3	3.2	0	0	94
Day off from work	87	93.5	6	6.4	0	0	0	0	93
Family member sick	65	69.1	27	28.7	1	1.1	1	1.1	94
Preserve annual leave	90	95.7	3	3.2	1	1.1	0	0	94
Leave exhausted	81	86.2	12	12.8	1	1.1	0	0	94
Certified unfit	11	11.7	65	69.1	10	10.6	8	8.5	94
Headache	65	69.1	27	28.7	2	2.1	0	0	94
Backache	78	83.0	15	16.0	1	1.1	0	0	94
Appointment with doc.	80	85.1	13	13.8	1	1.1	0	0	94
Attend personal matter	91	96.8	2	2.1	1	1.1	0	0	94
Recreational purpose	94	100	0	0	0	0	0	0	94
Add to approve leave	90	95.7	4	4.3	0	0	0	0	94
Annual leave rejected	90	95.7	3	3.2	1	1.1	0	0	94
Child sick	44	53.0	35	42.2	3	3.6	1	1.2	83
Menses	35	83.3	7	16.7	0	0	0	0	42

CHAPTER 6: DISCUSSION AND CONCLUSION

The purpose of this research is to investigate the pattern and attitude of sick leave usage among civil servants in Kedah. The result presented in the previous chapters is discussed below.

6.1 Pattern of Sick Leave Usage Among Civil Servants

One of the aims of this research is to examine the sick leave usage among civil servants. Specifically, it examines gender, age, and experience differences in sick leave. Further, it also examines sick leave among different categories of employment among civil servants.

The findings of the study indicated that civil servants who participated in the study on average took 2.65 days sick leave in a year. However, the dispersion of sick leave taken among the subjects of the study was quite broad i.e. almost 4 days. The large dispersion in sick leave is probably due to the wide variations in the distribution of sick leave obtained in the study. Almost 20% of the sample took no sick leave at all. Sixty five percent took 1 – 5 days sick leave while 12% took between 6 – 10 days. Only 2.5% of the sample took 11-15 days sick leave and less than 1% took more than 16 days of sick leave.

The present sick leave policy of the government allows for civil servants to take no more than 90 days of paid sick leave approved by a government hospital. Statutory agencies on the other hand have their own panel of doctors and the policy for instance at UUM allows staff to take no more than 15 days paid sick leave in a year from these clinics. Based on the results of this study, sick leave taken by the civil servants is well within the permitted level allowed by government policy. This finding therefore indicates that sick leave usage is not generally excessive and that the problem is well within control.

6.1.1 Gender Differences

The study found gender differences in sick leave usage. Female employees had a higher mean sick leave per annum (2.57 days) compared to men (2.39 days). However, this difference is not significant. Rogers and Herting (1993) found in their study that female army personnel in the US had a higher average sick leave compared to men. Tellness and Bjerkedal (1990) and Isacsson et al. (1992) have also reported women have higher sickness absence than men. Mastekaasa and Olsen (1998) suggest that higher incidence of sickness absence among women could possible be due to general health differences between women and men. Women thus may be having more health complaints than men as a result of which they take more sick leaves.

The study also found that sick leave usage among female academics, administrators, support services 1 staff and support services 2 staff were higher compared

to men in the four employment categories. Female employees in the support service 2 group had the highest mean sick leave per annum (5.1 days) compared to the rest. This finding suggests that the unskilled female civil servants take more sick leaves compared to the more skilled civil servants.

The pattern of sick leaves between younger an older male and female worker also differ. The findings of this study indicate that for men as age increases, sick leave also increases. For female employees increases with age until the 40 – 50 age range and declined in the 50's age range. However, the correlation between age and sick leave was stronger and significant for males ($r = 0.13$, $p = 0.0001$). For females there were no obvious relationship ($r = 0.04$, $p = 0.29$). These findings are consistent with that of Nicholson, Brown and Chadwick Jones (1977) and Hackett (1990). Similarly findings were also obtained for experience. The correlation between experience and sick leave was stronger and significant ($r = 0.18$' $p = 0.001$) for men. The correlation for women was weaker but significant ($r = 0.008$, $p = 0.04$). These findings indicate that older men had take more sick leave compared to older women. Similarly younger men take more sick leaves than do younger women. Further, junior male civil servants take fewer sick leaves compared to senior male civil servants. And junior female civil servants take less sick leaves compared to senior civil servants.

6.1.2 Age Differences

The study found significant age differences in sick leave. Younger civil servants had the lowest mean sick leave per year. As age increases, the amount of sick leave taken also increases until it peaks at the 40 – 50 years age group. For the above 50 years age group, there was a slight decline in sick leave taken. The bivariate correlation between age and sick leave though significant was relatively weak ($r = 0.09$, $p = 0.0001$). The relationship between age and sick leave found in this study took the form of an inverted U-relation, although the decline in sick leave of the older group (above 50 years) was relatively small. This relationship between age and sick leave is consistent with previous studies that examined the relationship between age and unavoidable absence (Ali & Davies, 2003; Isacsson et al., 1992; Prins, 1986; Thomson et al., 2000). This finding suggests that as civil servants become older they take more sick leaves. This is because as people get older, their physiology and other bodily functions gradually deteriorate and they become more susceptible to sickness and other form of illness (Brenner & Ahern, 2000; Niedhammer, Bugel, & Goldberg, 1998). However, the older workers who are above 50 years old take less sick leave probably because they may hold very senior position in the civil service and as a result will not ask for sick leave for minor illnesses (Clegg, 1983).

6.1.3 Tenure Differences

The relationship between tenure and sick leave is stronger compared to age ($r = 0.13$, $p = 0.0001$). Junior civil servants had the lower sick leave compared to more senior civil servants. The study found those who have less than 5 years working experience had the lowest mean sick leave per annum (1.72 days). On the other hand, the most senior civil servants i.e. those with more than 25 years working experience had the highest mean sick leave per annum (4.28 days). The study also found significant differences in sick leave usage for civil servants with different level of experience. The finding of this study is consistent with Chadwick-Jones, Nicholson, & Brown (1982) and Nicholson et al., (1977). The pattern of relationship between tenure and absence was also similar to age and absence (Thomson et al., 2000).

6.1.4 Sick Leave and Employment

One of the aims of this research is to examine the sick leave usage among different categories of civil servants. The civil service essentially comprises the professional and non-professional or what is termed supporting groups. The findings of the study indicated that the sick leave taken among the support or non-professional groups (support 1 and 2 groups) was generally higher than the professional groups (top management, academic, and administration staff). The study found academics had the lowest mean sick leave per annum (1.43 days) and support staff group 2 i.e. the unskilled workers had the highest mean sick leave per annum (3.89 days). The top management

category, which comprised only 11 civil servants in the sample, had a relatively low mean annual sick leave (1.98 days).

Academics comprised the largest group of sample in this study and had the lowest sick leave. It is probable that the flexible time regime used by academicians during the period of study could be a contributing factor to the low rate of sick leave. Since lecturers working time was flexible and it was not mandatory to record attendance at work, many of the lecturers probably did not register sick leave taken with the administration. As such the actual sick leave utilization among this group may not be reflective of true situation. However, this suggestion remains speculative. Nevertheless, with a stricter enforcement of attendance using electronic means as currently practiced by UUM, it is possible to confirm this in future research.

6.2 Attitude Towards Sick Leave

The result of the survey indicates that the attitude towards sick leave usage is generally positive. The study found that the majority of civil servants (93%) who participated in the survey only take sick leave when they are genuinely sick. In situations that can be considered elective sick leave (Rogers & Herting, 1993), such as taking sick leave for backache, attending to personal matters, and recreational purposes, the study found the majority of the respondents never use sick leave for these purposes. However in situations where a child is taken ill, slightly one-half of the respondents indicated that they have taken sick leave to care for their children. Among female civil servants, almost

22% indicate that they do take sick leave when they have menstrual pains. Further, almost 30% of the respondents indicated that they have taken sick leave when they have slight headaches. Interestingly, 11% of the respondents have indicated that they never resort to taking sick leave although they have been certified unfit for work by a physician.

The findings of this study suggest that the use of elective sick leave is not prevalent among the civil servants who participated in this study. It should be noted that almost 40% of the respondents in this survey indicated that their health was in excellent condition during the time of the survey. Almost 56% indicated their health was in good condition and only 4% indicated that their health was in poor condition. It is also to be noted that the average sick leave taken by the respondents in 2004 was 3.41 days, which was higher than the results of the main sample (2.65 days) nevertheless, is still relatively low.

6.3 Conclusion

The rate of sick leave taken among civil servants who participated in this study is relatively low. Based on the data obtained, the majority of civil servants are taking less than 5 days of sick leave per year. In the absence of a desirable standard of sick leave utilization by a civil servant, it can be concluded that the rate of sick leave taken is commendable. At present the government allows for a maximum of 90 days paid sick leave per year. However, this policy does not differentiate between hospitalized and non-hospitalized sick leave. In the absence of such distinction, it will be difficult to establish

a desirable standard of sick leave for civil servants, which could be used as a benchmark to determine whether there is an abuse of sick leave by a civil servant.

The result of the survey provides a positive indication that civil servants are not abusing sick leave. The study found that civil servants are not using sick leave for reasons other that when they are ill. Generally, most civil servants never take sick leave when they experience minor discomfort. They also do not abuse sick leave for personal or recreational reasons. Further, they do not use sick leave as substitute of annual leave or preservation of annual leave.

Much has been said about employees abusing sick leave based on anecdotal evidence. This is true when if at a glance we examine the range of sick leave taken. In this study the range of sick leave taken was from 0 to 50 days per annum. This evidence indicates that there are civil servants who take as much as 50 days of sick leave, which may seem excessive. However, it is unclear from the sick leave data available if the large number of sick leave days is based on hospitalized or non-hospitalized sick leave. However when we examine the average sick leave taken by civil servants participating in this study, it is evident that the sick leave taken is not excessive. Therefore the implication of this study is that based on empirical evidence, there is no abuse of sick leave among civil servants. This finding is further confirmed by the results of the attitudinal survey, which indicated that the majority of civil servants are not taking sick leave for non-health reasons. Nevertheless there is a minority of civil servants who does

take elective sick leave. However the evidence from this research indicates that this is not a serious problem.

The present study was confined to civil servants in the state of Kedah. Further, the sample was drawn from two major government departments. The results of this study may be typical. Therefore, the findings cannot be generalized. It is necessary for a broader sample to be drawn from more diverse government departments from a national sample in order to provide an accurate assessment of sick leave usage among civil servants. Nevertheless, these findings will be useful to the two government bodies that participated in this study i.e. UUM and Kastam Di Raja Malaysia.

Finally, this study did not assess the actual cost of sick leave to the organizations that participated in the study. It will be useful to take into account wage data in future studies so that cost of sick leave to an organization could be determined.

REFERENCES

Ali, H., & Davies, D.R. (2003). The effects of age, sex and tenure on the job performance of rubber tappers. *Journal of Occupational and Organizational Psychology, 76*, 381-391.

Blank, N., & Diderichsen, F. (1995). Short term and long term sick leave in Sweden: relationships with social circumstances, working conditions and gender. *Scandinavian Journal of Social Medicine*, *23*, 265-272.

Boer, E.M. D., Bakker, A.B., Syroit, J. E., & Schaufeli, W.B. (2002). Unfairness at work as a predictor of absenteeism. *Journal of Organizational Behavior, 23*, 181-197.

Brenner, H., & Ahern, W. (2000). Sickness absence and early retirement on health grounds in the construction industry in Ireland. *Occupational and Environmental Medicine*. *57*, 615-620.

Bridges, S., & Mumford, K. (2001). Absenteeism in the UK: A comparison across genders. *The Manchester School*, *69*, 276-284.

Buchan, J., & Seccombe, I. (1995). Managing nurse absence. *Health Manpower Management, 21*, 3-12.

Confederation of British Industries. (1999). *Focus on absence and labour turnover survey*. London.

Confederation of British Industries . (2001). *Pulling together: Fifteenth annual absence survey*. London.

Chadwick – Jones, J.K., Brown, C.A., Nicholson, N., & Sheppard, C. (1971). Absence measure: Their reliability and stability in an industrial setting. *Personnel Psychology, 24*, 463-470.

Chadwick-Jones, J.K., Nicholson, N., & Brown, C. (1982). *Social psychology of absence*. New York: Prager.

Chee, H.L, & Rampal, K.G. (2003). Relations between sick leave and selected exposure variables among women semiconductor workers in Malaysia. *Occupational and Environmental Medicine, 60*, 262-270.

Chevalier, A., Luce, D., & Blanc, C. (1987). Sickness absence at the French National Electric and Gas Company. *British Journal of Industrial Medicine, 44*, 101-110.

Clegg, C. (1983). Psychology and employee lateness, absence and turnover: a methodological critique and empirical study. *Journal of Applied Psychology, 68*, 88-101.

Ericksen, W., Bruusgaard, D., & Knardahl, S. (2003). Work factors as predictors of sickness absence: a three month prospective study of nurses' aides. *Occupational and Environmental Medicine, 60*, 271-278.

Fitzgibbons, D., & Moch, M. (1980). Employee absenteeism: A multivariate analysis with replication. *Organization Behavior and Human Performance, 26*, 349-372.

Fried, Y., Melamed, S., & Ben-David, H. A. (2002). The joint effects of noise, job complexity, and gender on employee sickness absence: An exploratory study across 21 organizations- the CORDIS study. *Journal of Occupational and Organizational Psychology, 75*, 131-144.

Garrison, K.R., & Munchinsky, P.M. (1997). Attitudinal and biographical predictors of incidental absenteeism. *Journal of Vocational Behavior, 10*, 221-230.

Gellatly I.R. (1995). Individual and group determinants of employee absenteeism: test of a causal model. *Journal of Organizational Behavior, 16*, 469-485.

George, J.M. (1989). Mood and absence. *Journal of Applied Psychology, 74*, 317-324.

Goodman, P.S., & Atkin, R.S. (1984). Absenteeism : *New approaches to understanding, measuring and managing employee absence.* San Francisco: Jossey-Bass.

Goodman, P.S., & Garber, S. (1988). Absenteeism and accidents in a dangerous environment: empirical analysis of underground coal mines. *Journal of Applied Psychology, 73*, 81-86.

Guinchard, R. (1998). Absenteeism and phantasy. *Journal of Managerial Psychology, 13*, 485-497.

Hackett, R., & Guion, R.M. (1985). A re-evaluation of the absenteeism – job satisfaction relationship. *Organizational Behavior and Human Decision Processes*, *35*, 340-381.

Hackett, R.D. (1990). Age, tenure, and employee absenteeism. *Human Relations*, *43*, 601-619.

Hammer, T.H., & Landau, J. (1981). Methodological issues in the use of absence data. *Journal of Applied Psychology*, *66*, 574-581.

Hardy, G.E., Woods, D., & Wall, T.D. (2003). The impact of psychological distress on absence from work. *Journal of Applied Psychology*, *88*, 306-314.

Harrison, D.A., & Price, K.H. (2003). Context and consistency in absenteeism: studying social and dispositional influences across multiple settings. *Human Resources Management Review*, *13*, 203-225.

Ho, J.T. (1997). Corporate wellness programmes in Singapore: effects on stress, satisfaction and absenteeism. *Journal of Managerial Psychology, 12*, 177-180.

Hoogendoorn, W. E., Bongers, P.M., Vet, H.C. W. D., Ariens, G. A.M., Mechelen, W. V., & Bouter, L.M. (2002). High physical work load and low job satisfaction increase the risk of sickness absence due to low back pain: results of a prospective cohort study. *Occupational and Environmental Medicine*. *59*, 323-328.

Huczynski, A.A. & Fitzpatrick, M. J. (1989). *Managing employee absence for a competitive edge*, London: Pitman Publishing.

Huse, E.F., & Taylor, E.K. (1962). The reliability of absence measures. *Journal of Applied Psychology, 46*, 159-160.

Isacsson, A., Hansson, B.S., & Janzon, L, (1992). The epidemiology of sick leave in an urban population in Malmo, Sweden. *Scandinavian Journal of Social Medicine*, 20, 234-239.

Iverson, R.D. (2000). Managing employee absenteeism and turnover for competitive advantage. In T.Travaglione, and V. Marshall (Eds.), *Human resources strategies: An applied approach* (271-309). Sydney: Mc-Graw Hill.

Janssen, N., Kant, I.J., Swaen, G.M.H., Janssen, P.P.M., & Schroer, C.A.P. (2003). Fatigue as a predictor of sickness absence: results from the Maastricht cohort study on fatigue at work. *Occupational and Environmental Medicine, 60,* 71-76.

Jenkins, R.(1980). Minor psychiatric morbidity and its contribution to sickness absence. *British Journal of Industrial Medicine.42,* 147-154.

Johns, G. (1978). Attitudinal and non-attitudinal predictors of two form of absenteeism from work. *Organizational Behavior and Human Performance, 22,* 431-444.

Johns, G. (1994). How often were you absent? A review of the use of self-reported absence data. *Journal of Applied Psychology, 79,* 574-591.

Johns, G. (1997). Contemporary research on absence from work: Correlates causes and consequences. In C.L. Cooper & I.T Robertson (Eds.), *International reviews of industrial and organizational psychology*, (Vol.12). Chichester: John Wiley & Sons.

Kivimaki, M., Vahtera, V., Thompson, L., Griffiths, A., Cox, T., & Pentti, J. (1997). Psychosocial factors predicting employee sickness absence during economic decline. *Journal of Applied Psychology, 82,* 858-872.

Kristensen, T.S.(1991). Sickness absence and work strain among Danish slaughterhouse workers: an analysis of absence from work regarded as coping behavior. *Social Science and Medicine*, *32* (1), 15-27.

Markham, S.E., Danserau, F. Jr., & Alutto, J.A. (1982). Female vs. male absence rates: A temporal analysis. *Personnel Psychology*, 35, 371-382.

Marmot, M., Feeney, A., Shipley, M., North, F. & Syme, S.L. (1995). Sickness absence as a measure of health status and functioning: from the UK Whitehall II study. *Journal of Epidemiology and Community Health, 49,* 124-130.

Martocchio, J.J (1989). Age-related differences in employee absenteeism: A meta-analysis. *Psychology and Aging*, *4*, 409-414.

Mastekaasa, A., & Olsen, K.M. (1998). Gender, absenteeism, and job characteristics: A fixed effects approach. *Work and Occupations, 25*, 195-228.

McHugh, M. (2001). Employee absence: an impediment to organizational health in local government. *The International Journal of Public Sector Management*, *14*, 43-58.

Mohamed, L.S. (1992). *Enhance productivity thru effective absenteeism controls*. Kuala Lumpur: SMPD Management Consultant Sdn. Bhd.

Moncada, S., Navarro, A., Cortes, I., Malnero, E., & Atascosa, L. (2002). Sickness leave, administration category and gender: results from the "Casa Gran" project. *Scandinavian Journal of Public Health, 30,* 26-33.

Munchinsky, P.M. (1977). Employee absenteeism: A review of literature. *Journal of Vocational Behavior, 10,* 316-340.

Nicholson, N., Brown, C.A., & Chadwick-Jones, J.K. (1977). Absence from work and personal characteristics. *Journal of Applied Psychology, 62,* 728-737.

Niedhammer, I., Bugel, I., & Goldberg, M., et.al. (1998). Psychosocial factors at works and sickness absence in the Gazel cohort: a prospective study. *Occupational and Environmental Medicine, 55,* 735-741.

Paringer, L. (1983). Women and absenteeism: Health or economics. *American Economic Reviews, 73,* 123-127.

Parkes, K.R. (1987). Relative weight, smoking and mental health as predictors of sickness and absence from work. *Journal of Applied Psychology, 72,* 275-286.

Peiro, J. M., Gonzalez-Roma, V., Lloret, S., Bravo, M. J., & Zurriaga, R. (1999). Predictors of absenteeism among public health services employees. In P.M Le Blanc, M.C. Peters, A.Bussing & W. Schaufeli (Eds.), *Organizational psychology and health care: European contributions* (85-100) Munchen: Rainer Hammp Verlag.

Population by Census. (1998). Census and Statistic Department, Hong Kong, China.

Prins, R., de Graaf. (1986). Comparison of sickness absence in Belgian, German and Dutch firms. *British Journal of Industrial Medicine, 43,* 529-536.

Rael, E.H.S., Stansfeld, S.A. , Shipley, M., Head, J., Feeney, A., & Marmot, M. (1995). Sickness absence in the Whitehall II study, London: The role of social support and material problems. *Journal of Epidemiology and Community Health, 49,* 474-481.

Robbins, S. P. (2005). *Organizational behavior* (11th ed.) New Jersey: Prentice Hall.

Rogers, R.E., & Herting, S.R. (1993). Patterns of absenteeism among government employees. *Public Personnel Management, 22,*215-235.

Searle, S.J. (1997). Sickness absence. In H.A.Waldron & P. Edling (Eds.), *Occupational Health Practice,* (112-113). Oxford: Butterworth-Heinemann,.

Skerjanc, A. (2001). Sickness absence in diabetic employees. *Occupational and Environmental Medicine, 58,* 432-436.

Steers, R.M., & Rhodes, S.R. (1978). Major influences on employee attendance: A process model. *Journal of Applied Psychology, 63* , 391-407.

Steers, R.M., & Rhodes, S.R. (1980). A new look at absenteeism. *Personnel*, Nov-Dec., 60-65.

Tellnes, G., Brussgaard, D., & Sandvik, L. (1990). Occupational factors in sickness certification. *Scandinavian Journal Prim Health Care, 8*, 37-44.

Thomson, L., Griffiths, A., & Davison, S. (2000). Employee absence, age and tenure: A study of nonlinear effects and trivariate models. *Work & Stress,* 14, 16-34.

Tsui, A.S., Egan, T.D., & O'Reily, C.A. (1992). Being different: Relational demography and organizational attachment. *Administrative Science Quarterly,* 37, 549-579.

U.S. Department of Health and Human Services, Source Book of Health Insurance Data, (1984-1985).

VandenHeuvel, A., & Wooden, M. (1995). Do explanations of absenteeism differ for men and women? *Human Relations, 48*, 1309-1329.